

MAY, 1910

FIFTEEN CENTS

NATIONAL MAGAZINE



ARTHUR
NOTCHES
1910

The PANAMA CANAL
TODAY by *Joe Chapple*

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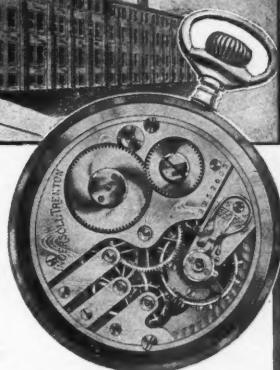
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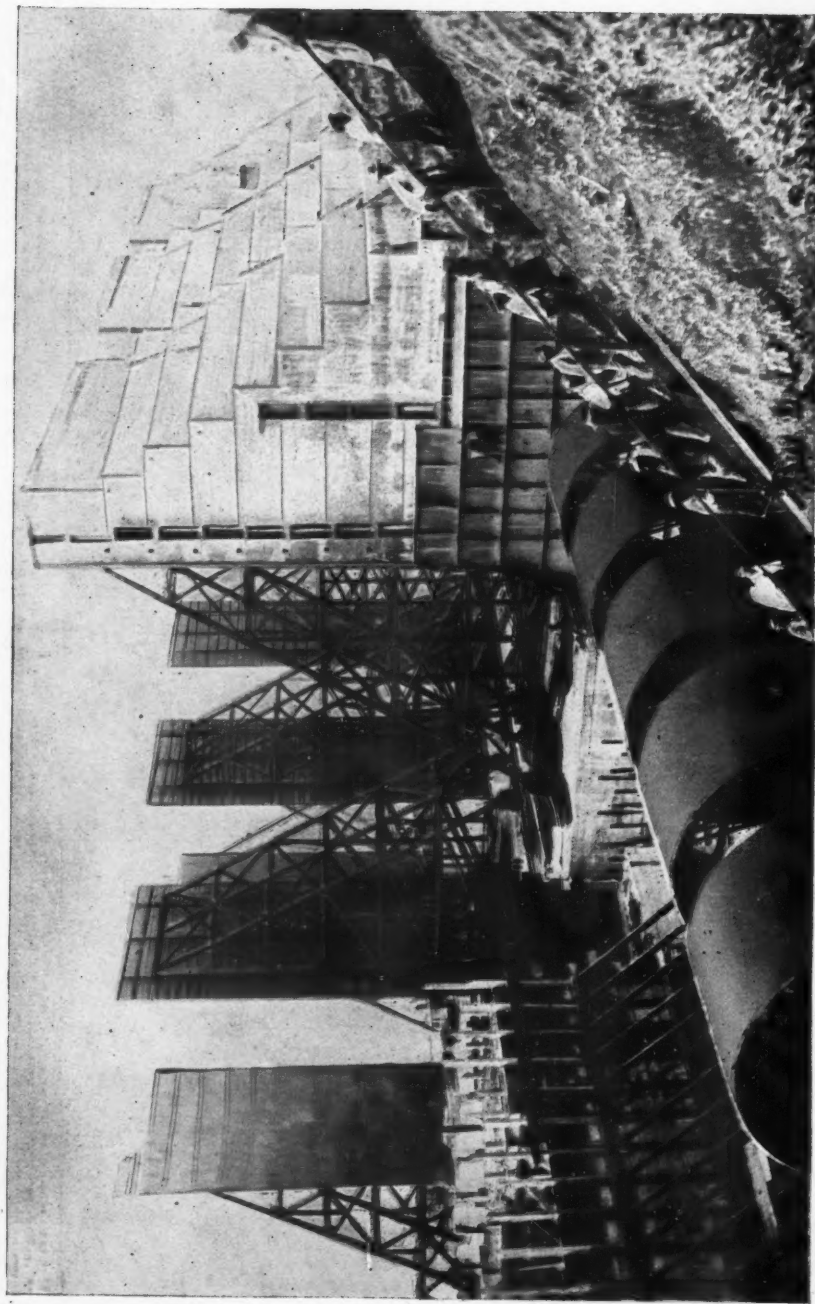
Ingersoll Models	-	\$1.00, \$1.50 and \$2.00.
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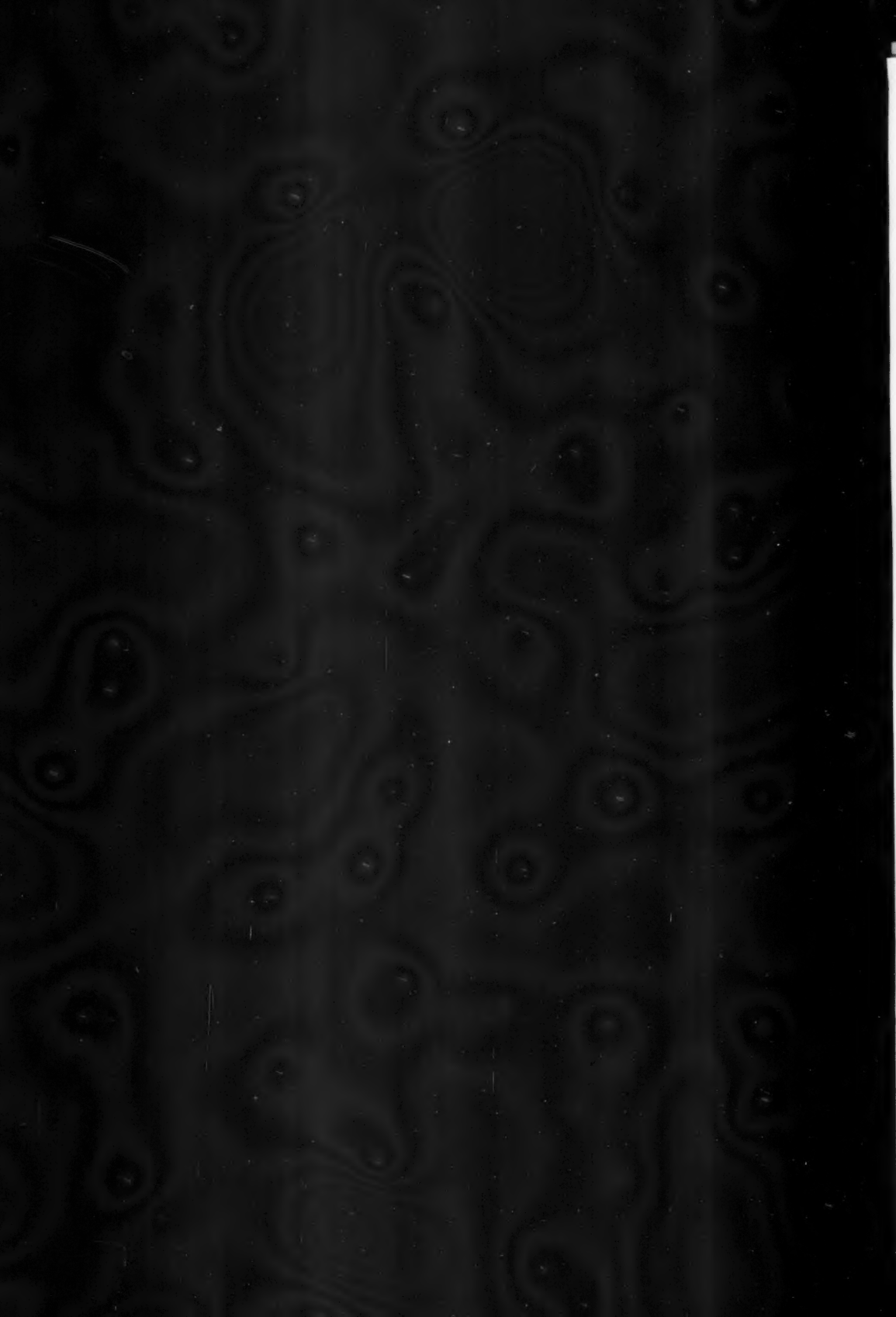
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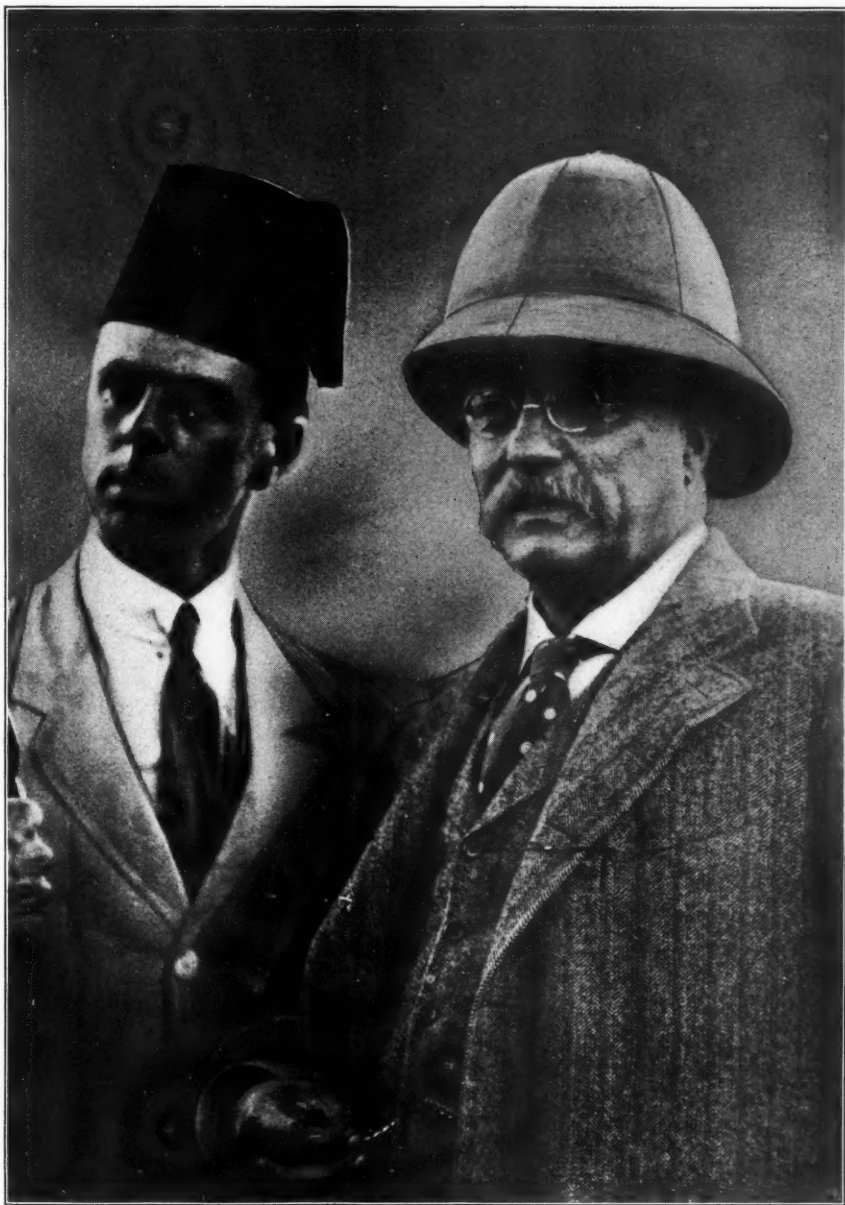
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GIANT LOCKS AT GATUN UNDER CONSTRUCTION, SHOWING MONOLITHS COMPLETED ON THE SIDE OF ONE LOCK TO RIGHT OF PICTURE. THE IRON FRAME-WORK LOOKS LIKE HALF BUILT SKYSCRAPERS





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EX-PRESIDENT THEODORE ROOSEVELT ARRIVING AT LUXOR

He was met by Chief Mursey (who wears a fez) of the Upper Egypt Railway. Though he has been a year in the African jungle the former president did not forget to ask "How's Goethals getting on at Panama?"



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COLONEL GEORGE W. GOETHALS

Chairman and Engineer of the Isthmian Canal Commission, Culebra. The man who has worked wonders on the Isthmus and who is loved and honored as a brave soldier doing his duty on the field

NATIONAL MAGAZINE

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MAY, 1910

NUMBER TWO



Affairs at Washington *By Joe Mitchell Chapple*

PICTURE Uncle Sam watching the digging of the "big ditch" with a smile on his face, and you realize the attitude of the United States toward the Panama Canal. In unpretentious quarters, in the Mills Building Annex, Captain Boggs represents the Isthmian Canal Commission in Washington, handling correspondence and details which are constantly coming up in the expenditure of the vast sums allotted by Congress for the work. The total cost of the construction of the Canal, including the \$50,000,000 paid to the French Company and the Republic of Panama, is now estimated at \$375,201,000. This also includes the \$20,053,000 necessary to carry out all the sanitation plans, while \$7,382,000 will cover the cost of civil administration. The Panama appropriation was the only one which escaped the pruning knife in the policy of retrenchment pursued by the present Congress.

Quietly and without strife, in contrast to Napoleonic methods, the world map is being changed by the beneficent conquest of great natural barrens and their utilization for commerce and peaceable intercourse. The man-made canyon at Culebra is a magnificent example of such conquest. Other phases of the undertaking, while less spectacular, have required equal forethought and arduous work to carry them to completion, for the digging of the canal has necessitated the eradication of the jungle and the

dangers of the tropical climate, resulting in the creation of a resort for tourists that may well be called "El Paraiso." On the Isthmus the "white man's burden" has a bright side, for out of toil and frequent disappointment has come victory over obstacles deemed insurmountable. Benefits have been conferred on the human race that will grow in value throughout the centuries. In the excavation of great ditches, the building of giant locks, and of railroads under tremendous difficulties, thousands of men have received a training impossible to secure in foray, siege, battle or institution of learning.

Every visitor to the Isthmus, whether he be a high official or a humble civilian, is convinced, as he looks at the work completed and in progress, that this is an investment worthy of the federal government. On returning home each traveler is impressed with the eagerness of the people to hear "how the digging is going on." He is as a man returned "from the front," but how different the news he has to tell! Contrast with the pride and pleasure felt in Isthmian achievement the thrill of fear with which the daily paper is opened, or the bulletin read in war time, when a list of "killed, wounded and missing" may include the name of some loved one.

The conduct of the enterprise is military and suggestive of conquests, but they are the conquests of peace and emphasize the fact that close-knit organization is valuable to the nation at all times. The

whole world is watching the spectacle of thousands of men and millions of money employed in building a mighty waterway that shall change the paths of the sea, and create new ideals and standards for the republics of the future, whether in the torrid, frigid or temperate zone. The benefits to be derived from the completion of such an enterprise have been pronounced by many an Utopian dream,

their good money shall not be spent in looking at inferior plays. If any given show does not come up to the standard or is in any sense demoralizing in its effect, the word is passed along and that box office is not visited by any of those women. This is another peculiar phase of the "boycott movement," which appears just now to be pervading the country, and if the women of a city make up their minds to place a ban on any play in a pronounced and emphatic manner, the managers soon discover that the bill must be withdrawn. The purpose of the movement is economical as well as ethical, for it has been decreed that no more good money is to be wasted; inspection of records has shown that far more money goes in this way than is realized by most people, and that the results are positively bad. This outbreak of the rampant spirit of organization of our time will be watched with much interest, as a sort of guide post indicating the trend of thought of our own day and generation.

* * *

WHEN the Democrats and insurgents overruled the chair and evicted the old rules committee consisting of Speaker Cannon, John Dalzell of Pennsylvania, Walter I. Smith of Iowa, Champ Clark of Missouri and J. J. Fitzgerald of New York, it only enabled the House to show that there was one man who could unify all the discordant elements of the House, and that man was Walter I. Smith of Iowa.

He has been classed as a regular but has always shown a large degree of independence and has by his uniform consideration for all members and his fair and broad way of dealing with all questions endeared himself to the Democrats as well as all elements of his own party. Scarcely was the old rules committee ousted before Mr. Hayes of California, chairman of the insurgent caucus, announced that the



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MRS. POLITTE ELVINS

Wife of United States Representative Elvins of Missouri; a charming Congressional hostess

but those who have been there know that the nation that has remembered the old motto, "To give is to gain," will never regret that she undertook the digging of the Panama Canal.

* * *

AMERICAN women have a way of initiating new ideas that is refreshing. In Chicago a woman's club has started a new feature in a theatrical censorship. They are determined that

insurgents were all for Walter I. Smith for membership on the new rules committee and when the ballot was taken Mr. Smith led all the rest receiving twenty-two more votes than any man in the United States, and forty-two more than the third highest. Mr. Dalzell has been on the committee since Speaker Reed's time and was the choice of all the regulars but still Smith led him twenty-two votes.

Many think this clearly foreshadows who will succeed Mr. Cannon as Speaker and that the Speakership is about to be returned to Iowa. We have spoken in the past of Mr. Smith as a fitting Senator from Iowa, but it now looks highly probable that he will soon hold a higher office than that of Senator.

His rise has been rapid but continuous. He graduated at the Council Bluffs High School at fifteen years of age; attended for a short time Park College in Missouri; studied law and was admitted to the bar at twenty; at twenty-eight was Judge of the District Court in a district which has nine counties and ten county-seats; at thirty-eight he was chosen a member of Congress to fill a vacancy, and took his seat at the short session of the Fifty-sixth Congress; he was appointed at his first session on the committee to investigate hazing at West Point; the next session he was appointed on banking and currency and elections; two years later he was appointed to the committee on appropriations; a year ago, when the Republicans first chose their members of the rules committee in caucus, he was selected as the successor of Vice-President Sherman. He is now member of the committee on rules, member of the committee on appropriations, chairman of the fortifications committee, ranking member of the committee on the sundry-civil bill, chairman of one conference committee with the Senate and ranking member of another, member of the House building commission and member of the joint commission of the two houses charged with the solution of all questions relating to the bonding of Government officers.

Few members have risen so rapidly without exciting jealousy in the House, but the recent vote showed him apparently

the most popular man in that body. He is now between forty-seven and forty-eight years of age.

* * *

WHEN Congressman James Kennedy of Ohio gets ready to make a speech he always has something to say that is worth hearing. In addressing the Business Men's Association of Alliance, Ohio, he ably discussed the high cost of living. Going to the tap root of the matter, he insisted



Photo by Harris & Ewing

CONGRESSMAN W. I. SMITH OF IOWA

that the new tariff bill had started a discussion and study of prices all over the country. In his opinion prices are advancing all over the world and food stuffs will never again be sold at as low a figure as they have been in the past. He pointed out the fact that the increased gold supply has had much to do with the rise of prices.

The largest gold producing country is the Transvaal, where the output increased from eight million dollars in 1889 to one hundred and thirty-three millions in 1907.

The increase in the production of the Transvaal mines made during the year 1907 almost equalled the entire production of the gold fields in Alaska. In round figures, the world's production of gold from the discovery of America in 1492 to 1880 was about six billion, three hundred million dollars. The entire world's supply of gold could not have been

the gold that is in it. The statement that we see everywhere in the papers that all prices are going up is a truth that could as well be expressed in these words, "the exchangeable value of gold bullion is shrinking."

Mr. Kennedy seems very sure that we shall never again buy eggs so cheaply as those he brought to market years ago and sold for fifteen and twenty cents per dozen.

The marvellous increase in the visible supply of the world's gold does not mean that the purchasing power of gold has decreased in the same ratio that its volume has been augmented. As gold becomes more plentiful its exchangeable value decreases. At the same time its uses in the fine arts and manufactures are multiplied, and this has a tendency to somewhat retard the shrinkage in gold values.

When relatively viewed, and when the increase in the earning power of the people is considered, prices may really not have undergone so great an advance as is supposed. When the change in the relative value of money is considered, the farmer who sold his wheat in 1880 at fifty cents probably received as much in exchangeable value as the farmer who sells his product today for one dollar. In fact, a scholar who has looked up old letters and papers of thirty years ago reports that the lament on the increased price of living contained in those documents

might be printed as the present day utterances of farmers and city dwellers.

The situation is somewhat reversed to that of 1893 when the farmer could show that the "city fellers" were getting the best of it.

* * *

AT the annual convention of the Rivers and Harbors Congress, which took place in Washington, there was a blaze of enthusiasm, and the faces of the dele-



L. WHITE BUSBEY, SECRETARY TO SPEAKER CANNON

in excess of six and one-half billion dollars. The last thirty years has doubled this supply, and if the present production is maintained for another generation, it will double again. As gold has long been the world-wide standard of value, these statistics certainly suggest that the increase in the production of this precious metal may indeed vitally affect prices. Our dollar can never have greater purchasing power than the exchangeable value of

gates were bright with pleased anticipation as they gathered in the hotel lobbies. That great body of business men and the national character of the gathering were in sharp contrast to the delegation which assembled in Baltimore eight years ago, when the first national Rivers and Harbors Congress was convened. The programme of the recent meeting reveals that it is only a question of time when proper attention will be given

public career he has sought to stop the onslaught on Uncle Sam's treasury vaults. Senator Chamberlain of Oregon had a rap at Congress and handled the bond issue problem with sleeves rolled up. He insisted that both President Roosevelt and President Taft had essentially endorsed the bond issue. He also said that it was quite as proper for bonds to be issued for the development of inland waterways as for the building of the

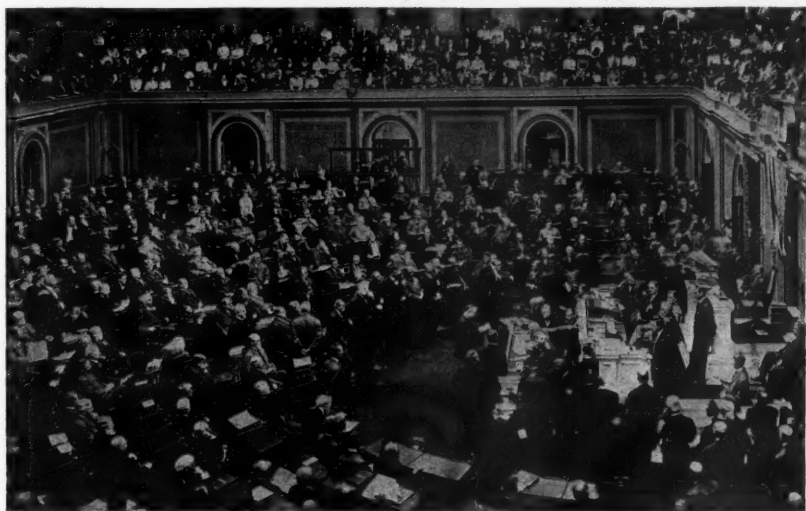


Photo by W. A. Du Puy

AN EXCITING DAY IN CONGRESS

This picture was taken at the most vital moment in the House of Representatives on Saturday, March 19. The Speaker, after a two days delay in ruling on the Norris resolution, is finally brought to do so, although he knows that it will mean his downfall. As the picture is taken he is reading precedents for the action he is about to take. The scene is one of the greatest intensity. It is at very rare intervals that pictures of the House or Senate in session are taken. But one such picture of the House has been taken in the last decade, and it portrays merely a routine scene. Never before has a picture at a great crisis been taken. Here was the regime of forty years being broken down. Here was the greatest gladiator that Congress has produced in a generation facing his enemies.

History is here being made

by the government to the development of the nation's inland waterways.

A great wet blanket descended and enveloped the convention when President Taft did not unreservedly endorse the bond proposition. The President desired to have specific plans for improvement made through Congress. "Perfect your plans, then get the money and avoid extravagance," was his advice.

In spite of this chilling of anticipations the Congress continued its deliberations, with a few snowballs from Speaker Cannon, whose chief crime is that all through his

Panama Canal. He derided the policy of Congress in putting off things to the next session, and stated that it did not accord with the will of the people, who had, he believed, been emphatic and clear in the expression of their desire for the issue of government bonds for the development of the waterways of the country.

* * *

AMONG the ambassadors appointed by President Taft, the career of Richard C. Kerns, now located at the Austrian post, stands out conspicuous. His family

originally lived in Iowa, but later moved to Missouri. The first employment that the present ambassador to Austria secured in Fort Leavenworth was as a teamster or, as they were called in those days, "a mule whacker." Young Richard became an expert teamster, and was soon promoted to the position of assistant wagon master. Now, as he appears at the Austrian court, among the historic Hapsburgs, one of the oldest and most aristocratic families of Christendom, the erstwhile "mule whacker" of Missouri represents the great



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DR. THOMAS JONNESCO

Discoverer of the value of "Stovaine" as an anesthetic

republic of the West, and affords a curious contrast to the gentlemen of the proud court with whom he will be associated. He will move amid scenes which may suggest to him the Viennese play, "The Merry Widow," rather than recall the busy days of his early youth on the plains of Kansas.

* * *

NEW and important discoveries are coming in thick and fast nowadays. Professor Jonnesco, of Bucharest, who has experimented widely in that city, London and elsewhere, announces great results with stovaine and strychnine combined.

Stovaine, discovered in 1902 by Eduard Fourneau, a French chemist, consists of small, crystalline white scales soluble in water or alcohol. The first experiments with this new anesthetic, reported by Dr. F. Billon in the French medical press in 1904, and later experiments by physicians in that country, Germany, Scotland and England, demonstrated that in some instances the use of stovaine was followed by paralysis of the lower limbs, sometimes lasting a full week, and in other cases the patients were troubled with headache and continual vomiting for several days after an operation. It is claimed by Professor Jonnesco that the combination of strychnine with stovaine does away with all these disagreeable after effects, while its use permits the patient to retain every sense except that of feeling.

Stovaine is injected into the spinal canal by means of a hypodermic needle. At first it was not considered wise to use any form of stovaine for operations in the upper part of the body, but when the system is supported by the addition of strychnine, it is believed that any danger of a paralysis of the heart is done away with. The Professor's claims have been confirmed by a series of several hundred operations, some having been performed at the Bucharest Hospital and at the Seaman's Hospital at Greenwich, England. The discovery is regarded as of great importance by the medical profession all over the world, and the experiments made in this country are being eagerly watched by the medical profession, for the use of this new anesthetic promises a revolution in modern surgery.

* * *

AT THE National Press Club, Cy Warman, the author, gave startling information in reference to American immigration into Canada, stating that 50,000 citizens of the United States, possessing an average wealth of \$1,000 each, have migrated to the sister country. This is immigration that counts. While Great Britain has begun to fear for the future of her Western colonies, because of this great influx of Americans, it is not likely that the Canadians will regard their alarm as other than added proof that "the



MISS RUTH BLISS

house of peers has become the house of fears."

England seems to be in the throes of a succession of scares, ranging all the way



Photo by Harris & Ewing

WARREN JEFFERSON DAVIS

Vice-President National Democratic League of College Clubs and Chairman Intercollegiate Democratic Association of the District of Columbia

from airships to immigration. The insular Briton finds it difficult to realize that the line of demarkation between the two great new nations of America is largely imaginary, and that what benefits one country is sure to be good also for the other. The great province of Saskatchewan produces nearly as much wheat as Minnesota, but on this side we do not regard this fact as alarming. Though recognizing the value of Canadian nickel mines and asbestos quarries and other great natural resources, the United States realizes that new resources in our country must be developed to keep pace with the unconquerable exploitation spirit of the hemisphere.

YES, the monster gasoline must still prevail in the tests of the Geological Survey at Washington, the denatured alcohol not having proved to be efficient as fuel. It was found that it took from one to one and a half more alcohol than gasoline to produce a given amount of work. This has been the result of a series of tests, made on special engines suited for experiment, where the fuels were tested gallon for gallon, with a view of obtaining definite information as to the productive power of each. All these tests are interesting when one remembers the virtues accredited to denatured alcohol by its champions, and what might be accomplished if it could have a fair chance.



ROGER SHERMAN HOAR

President National Democratic League of College Clubs

Potato parings and other refuse of the farm as a means of converting waste into denatured alcohol, which would save the cost of keeping horses or hiring other forms of power for work on the farm, has not yet materialized. Scientists will have to make further discoveries before de-

natured alcohol can compete with the familiar gasoline with its pungent and penetrating odor that lingers in the wake of the buzz-wagon and worries the life out of citizens of the United States who are still walking or following a horse.

* * *

THERE is something refreshing in a chat with Seth Bullock of South Dakota, even when mingling with the nabobs of Washington, for he always remains the same picturesque character who made Deadwood famous and put respect for the law even in the hearts of the frontier "bad men."

He now insists that a homestead out in Dakota is as rare as a buffalo. "Business is good, everybody is happy, tax and other laws are obeyed, and I see little sign of insurgency in the Dakotas," he says, with a genial twinkle in the keen blue eyes peering out from beneath his



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CHANG YIN TANG

The new Chinese minister who was accompanied on his arrival in Washington by his wife and daughter, fifty attaches, secretaries and students

heavy eyebrows and slouch hat. Sheriff Bullock is always ready with a story about the early days when the men with notches on their guns were the rulers of the wild and woolly West. He says that the only

place where one can hear or see much of this kind of life now is in the canned cowboy plays on Broadway, or in the modern novel. Each community has its



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MRS. HENRY CHANG

Who was married to the new Chinese Minister's son at the new Chinese Legation, according to the Chinese custom

library, church and school, and many a farmer has his automobile, piazzaed house and grand piano, and rooms filled with trophies of travels in Europe and elsewhere. "The time may come," Mr. Bullock says, "when we may have to change some of the real, good old names in the Dakotas, even those encircling Deadwood."

One of these changes may eventually rechristen the classic defiles of Go-to-Hell Gulch, which in its section is mentioned in the same naively unconscious way that a New York lady would speak of Broadway.



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DAY MOODY HARLAN HOLMES FULLER M'KENNA *BREWER LURTON WHITE

THE JUSTICES OF THE SUPREME COURT

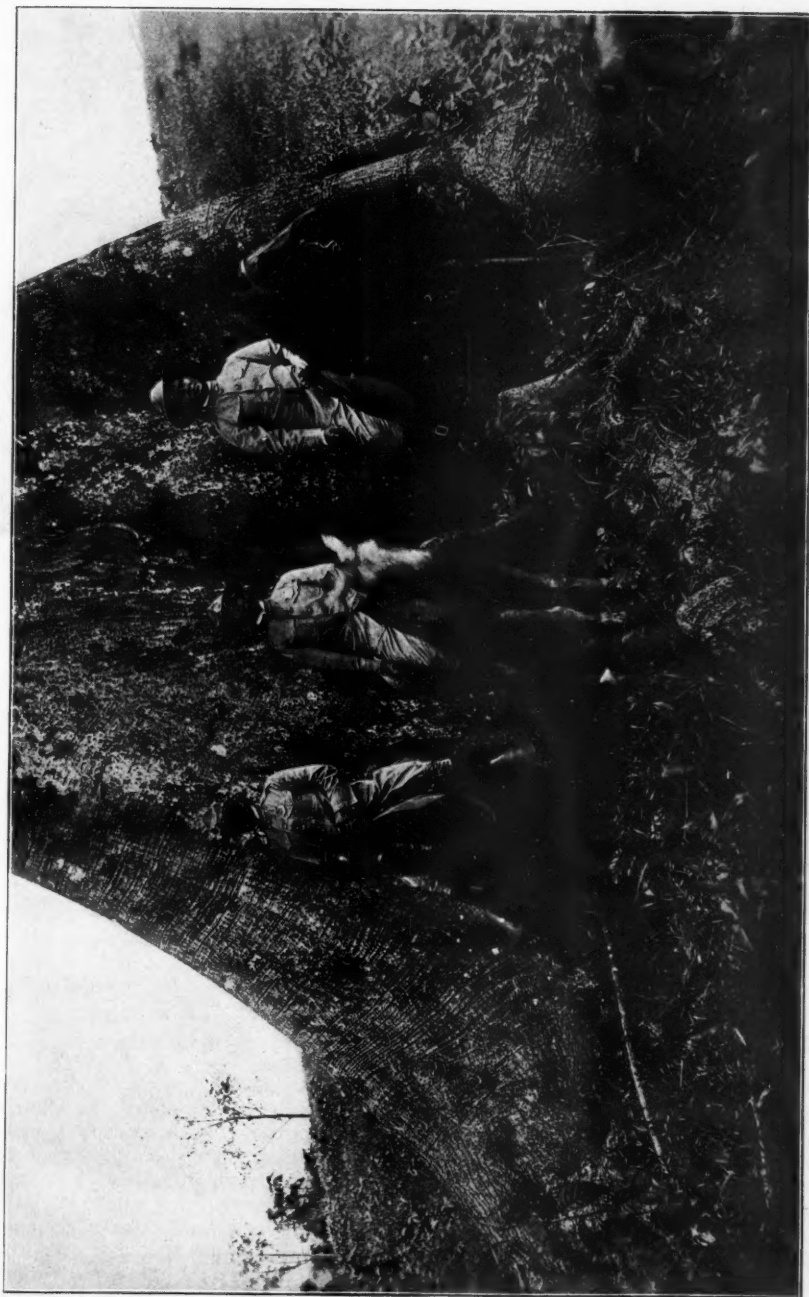
Like all local names in the West, it seems there was good reason for this cognomen, since, when the great strike set in at Deadwood, off on one of the hills there was a gulch that seemed to have been overlooked. Prospectors returning from their work were often questioned regarding the outlook for ore at this location, and generally responded only by a grunt. At last, however, their patience gave way and when asked further regarding the place where the strike was made, they

*Deceased.

changed the grunt to three words not current in polite society, which name the gulch still bears.

* * *

THE spirit of comradeship among the Justices of the Supreme Court brought to light an incident that was somewhat of a diversion from the consideration of briefs and hearing the drawing of legal arguments. Almost every eminent man is more or less familiar with the Scriptures, and one night when Justice Brewer was



CEIBA BUTTRESSED TRUNK AND ZONE POLICE ON THEIR MOUNTS

present the degree of his familiarity with the Bible was discussed. He insisted that he knew as much of the Holy word as most men. Then the question was asked: "What is the happiest animal in the Bible?"

The justice tried "Balaam's ass," "the dove that flew back to the ark with an olive leaf," "the oxen that drew the sacred ark," but he did not guess the right answer, and the usual "give it up" was passed.

joke in that. You have not brought it home straight, Samuel." This last was said very severely.

"Yes, yes, I have," replied the legislator. "I didn't see the point at first, until they all laughed. You wait a minute and it will come to you—when it does it is very funny, 'the wicked fleeth when no man pursueth.' It's fleas, you know, Sally—just ordinary fleas."



IN THE PANAMA JUNGLE THE SIGNAL HOUSES LOOK LIKE BIRD CAGES

Then the questioner at last gave the reply, "The wicked flee when no man pursueth." There was a ripple of laughter, and one of the company who believed that he saw the point of the joke, laughed with the rest and made up his mind to take this amusing question home to his wife. The good lady hazarded several guesses, but her husband shook his head. "Will you give it up?" he inquired.

"Yes," said she, "tell me the answer."

"The wicked fleeth when no man pursueth."

She looked mystified. "I don't see any

"Samuel, you've got your Biblical quotations on crooked. Use a hat pin."

* * * *

THE story of Auguste Rodin, the eminent French sculptor, has a never-failing interest for Americans visiting Europe. Ever since his withdrawal of the famous Balzac statue, which he had been commissioned to create and withdrew because of unfavorable criticism from the Society of Men of Letters, he has attracted increasing public attention. The Society refused to accept the model,

and though he might legally have held them to the terms of their contract, he at once took back his statue and made no effort to compel the Society to fulfill its obligations. The sculptor retained the statue in his studio and refused all offers for it, and it remains there today, a triumph of his genius, which many persons visit the studio to study.

At the present time Rodin is considered

GRAVE fears have been entertained recently as to the fine mooly cow that is allowed the liberty of the White House garden. The grass that grows in front of the State Department is used for the executive cow almost all winter, and she seems to enjoy it. Photographers have been kept busy taking pictures of Mooly, and directly under the window of Secretary Knox the pastoral scene is



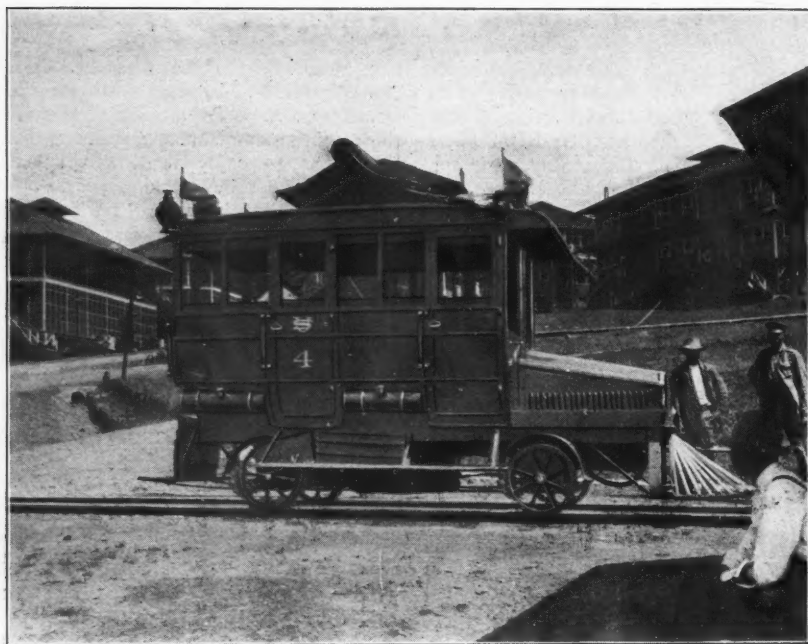
A YOUNG MEN'S CHRISTIAN ASSOCIATION BUILDING ON THE CANAL ZONE

to be as great a master in French sculpture as Wagner is in music, because he has brought to his art, genius, power and inspiration. Perhaps no single work of his more aptly shows the trend of his thought than the rejected Balzac statue, which shocked conventional ideas at the time it was modelled. He has chiselled the great writer attired in a clumsy and ill-fitting dressing-gown instead of flowing mantles, accentuating the head and features of the great master of literature. The lapse of time will reveal this statue as a new and permanent phase of a deathless art.

visible. The latest thing is the suggestion that a fence be run around Mooly to keep the people from clipping her tail, and carrying it off piecemeal as souvenirs, for the cow of the President has a distinction all her own, whether she knows it or not.

* * *

TO a group of Bostonians Count A. de Sonis, of Paris and Algeria, announced that Boston was the most interesting city in this country. With an expression of "Boston only" they listened to him, while he related his impressions of



COLONEL GOETHALS' PRIVATE YELLOW "BRAIN CAR" USED ONLY
ON THE MAIN LINE

"Bostone." The Hotel Touraine suggested to him the famous chateau in France of that name where is emblazoned the fleur-de-lis, the coat of arms of the kings of France.

"Bostone is more beautiful than Washington," said the Count, who is the owner of 30,000 acres of cork forest in Algeria, and sells much of his product in this country.

He insists that the Germans have made all the trouble in Algeria, and that but for them there would have been a peaceable solution of all differences.

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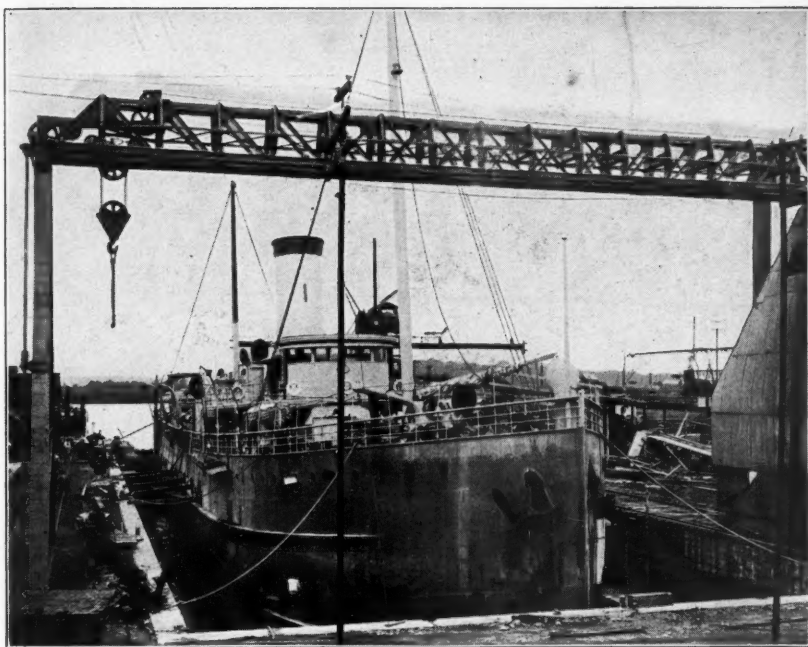
WITH the same persistence with which he has followed up his convictions in public matters, Senator Gore, the blind statesman from Oklahoma, has insisted that some day he will see. His cheerful optimism is infectious. He has been undergoing treatment with the hope that he will at least be able to distinguish the outlines of objects, that he may be able to go about without an attendant.

One of his ambitions is to become a Mason, and he desires to become one "at sight," the same as President Taft. It has been agreed by the Grand Master that when he can distinguish the outlines of any object, the special dispensation will be granted.

An indefatigable worker, the Senator keeps in close touch with his constituency in the new state, and takes particular pains to render every service that might be expected from a man in full possession of his eyesight. While feeling keenly his affliction, no word of unmanly complaint has ever been heard to pass his lips.

* * *

VISIONS of '93 came to mind when I met General Jacob S. Coxey in Washington. Yes, it was the very same Coxey who led the "Army of the Unemployed" to the White House in that momentous year of soup houses and corn honey. His army was long ago disbanded, and he is now a plutocrat of the first water, owning silver mines which he secured at that time, and even a gold mine, now, 'tis said. When



THE DRY DOCK AT BALBOA, PACIFIC END OF THE CANAL

tariff matters were under consideration the general duly arrived at the Capitol, to see about the duty on arsenic, for he also has a mine producing that commodity. He did not hesitate to make complete confession that he is no longer a free trader. Europe produces arsenic chemically, but Coxey assured the folks in Washington that his mine produces the pure stuff. A duty of one and a half cents on arsenic was required to keep the mines going, and the general was doing his part to secure what he wanted.

* * *

YOU Americans always think of doing big things, and have always been able to boast of the gigantic achievements of your country," remarked an Englishman.

"But think of the Cape Town to Cairo Railway," said Mr. Gildemeester, "that covers a stretch of sixty-four hundred miles from one terminal to the other."

There are now twenty-five hundred miles to be completed, and it will be

finished in three years, being then the longest railroad in the world, covering sixty-four hundred miles with one straight track—think of it. When completed the traveler can reach from Cape Town to Paris in ten or eleven days. The track traverses and opens up a country rich in every mineral, including gold, silver, and even diamonds. What it will accomplish for the continent of Africa the world can only partially comprehend.

"Many American engineers," said Mr. Gildemeester, "are employed on the work, which is largely being done by Kaffir laborers, and when we have this railroad spanning the continent from tip to tip, we shall have something that will set you Americans thinking of building your railway to Alaska, and on through Mexico to South America."

However good the sea routes may be, it cannot be denied that railways are necessary to fully develop a country from coast to interior and from interior to coast.



THE "BUGGY CAR" AMONG A BLOCKADE OF DIRT TRAINS IN CULEBRA CUT



EXCAVATING BLASTED ROCKS FOR A LOCK SITE

THE absorption of the Western Union Telegraph Company by the American Bell Telephone Company brings to mind memories of Samuel F. B. Morse, the inventor of the telegraph. Of all the inventions of the past century, none have more greatly promoted civilization than the completion of that magical method of transmitting messages. The first that went to Washington from Baltimore was "What hath God wrought?" which tersely embodied the reverent recognition by Mr. Morse of the Creator who had permitted him to make this wonderful discovery, at a time when it could no longer be used to tyrannize over the whole earth. The telegraph has been responsible for the development not only of this country but of the whole world. It is to the credit of the United States government that at least this invention was favorably exploited and aided by a government appropriation.

The story of Samuel Finlay Breese Morse, born fifteen years after the battle of Bunker Hill, is one of the thrilling romances of American biography. On Main Street, Charlestown, at the very foot of Breed's Hill, I found the birthplace of the great discoverer who fulfilled the almost prophetic utterance of Shakespeare when he spoke of Puck as "girdling the earth in forty minutes." He fought battles and won victories that were just as important as those of any general or admiral on land or sea; he has practically conquered time and distance. He began his career, strange to say, as an artist, and amid his struggles and hardships learned that courage and energy would do more than anything else in this world, whether in art or in the pursuit of some abstruse problem in science. Enemies could not dismay him, and inch by inch he fought his way until he won the victory that was flashed out to the world across telegraph wires.

Mr. Morse's father was a Congregational minister, renowned for the force and convincing reasoning of his sermons. Daniel Webster spoke of the elder Morse as a man "always thinking; always writing; always talking and always acting." His mother was the granddaughter of Dr. Finlay, the president of the Presbyterian Univer-

sity at Princeton, and possessed clear judgment, tactfulness and moderation combined with the forcefulness that often characterizes the Scotch race. She managed the parson's sparse income in a way that would astonish the modern housewife. The boy, who later became famous, was known as "Finlay Morse," and was the oldest of eleven children, only three of whom reached manhood. The first artistic talent shown by young Morse was evidenced in etching a pen-and-ink likeness of his teacher on a chest of drawers; an artistic venture for which he was soundly punished by the schoolmaster. When at Yale the young man manifested a great interest in chemistry, and especially in



"What hath God wrought?"

the then mysterious subject of electricity, which was involved in the proposition of Enfield that should the circuit be interrupted the fluid would become visible, and when it passed would leave an impression on any intervening body. This theory was the basis on which the young student began investigations that crowned his name with undying laurels.

"The fact that electricity could be made visible was the crude seed which took root in my mind, and ripened into the invention of the telegraph," said Mr. Morse, fifty years after his student days. His letters home at the time he first began to study electricity were filled with information and theories regarding that mysterious subject, although with his liking for the pencil and brush and his artistic talent,

none of his friends ever supposed then that this poetic, idealistic young painter and dreamer would become the most renowned inventor of his time.

* * *

DESPITE all labor-saving inventions, there never has been a time when good home-making abilities meant so much as they do now. Lessening the drudgery and hard work in keeping a home neat does not lessen, but rather increases the love of home. It gives the mother time to care not only for the



"She can meet him at the door and dissipate his frown"

physical comfort of the members of her household, but to undertake many little, yet important, matters that only a woman can fully appreciate and understand. How quickly a lovely woman can transform an unattractive room into a nest of cheer, comfort and restful charm, and how quickly she can also transform a hungry, scowling husband into a happy, cheerful companion, content and worthy to dwell in a home that is so full of comfort and beauty. She can meet him at the door and dissipate the frown in a few minutes. The pleasant word, the cheery smile, are as effective in altering the appearance of a man as a bit of stucco or a little white-wash or a picture are in altering the look

of a home. When the White House was built, the only form of ornamentation known was stucco, but then as now there were the little details—mere trifles—that make up the ensemble which impresses the visitor with the conviction that here indeed is a home that might serve as a model to the nation.

* * *

WHILE England has just emerged from the throes of a great agitation over "the budget" on appropriations and revenues, involving important issues such as have seldom engaged the attention of British statesmen at any time since the days of Magna Charta, the work of pruning Uncle Sam's budget goes steadily on, unaffected by the worry which such changes excite in other countries. The figures of last year were cut \$123,000,000 under a deft pruning knife, and whatever anesthetic was used to make the operation painless seems to have been effective in allaying any outspoken disaffection. The Panama Canal funds alone escaped the knife. Nothing was asked for new ships of war, which indicates that the German "bogy man" has not as yet found his way across the Atlantic, and although English papers are filled with startling information concerning the Kaiser's vast armament, papers on this side speak more alarmingly of the phenomenal industrial power and development of the German nation.

Though the United States is remarkable for initiative and enterprise unparalleled in any other country, it is pointed out that there is a lack of thoroughness, concentration and focused effort. The training which has resulted in Germany's commercial prosperity and prestige and enables that nation to reach to all parts of the world is begun in the public schools. Each phase of industrial development is studied with as close attention as any form of scientific research, and industrial questions are carefully considered by German teachers as well as students. The work of Kant, Goethe and a host of other famous German students is now finding fruition in the great object of modern life—success in business. A German professor who had been for some time in this

country, studying conditions, having been sent out by his government, confidentially remarked to me, asking that his name be not used:

"I came to the States impressed with Germany's all-sufficiency in equipment both for commerce and conquest. I find that, while the thorough knowledge and firm grip of Germans on what they do know is most valuable, it is no match for that subtle enthusiasm and go-ahead spirit that prevails in the United States. It will be a blend of these two forces that will conquer the world's trade."

He added that he had recommended that young men entering the trades in Germany, should, if possible, be given a few years in the United States to learn initiative—"But," he added, "the danger is that if we send them here they will not return," for the opportunities offered are too much even for the phlegmatic Teuton.

His just criticism of the lack of thoroughness in our country is exemplified in the graduates of our high schools, who, after a diversified course of study, acquire a smattering of many subjects but a firm grip on none. In most business colleges, students are sent out as proficient after a course of three or four months, and are thrown but half equipped upon the mercy of the commercial world. A course requiring two years in the older countries is rushed through in the United States in three months. The result is that thousands and thousands of mistakes in every line are made, incurring a fearful waste of time and patience among American business men, to say nothing of actual monetary losses to employers, through errors often arising from a lack in common school English studies.

Speaking of Germany, the fact is brought out by the Bureau of Statistics that that Empire is the chief source of all imported paper and paper goods coming to the United States. More than seven out of the twelve millions of dollars' worth of paper goods used in the United States come from Germany. The lithographic labels and prints comprise nearly half the

total imports along this line, and are valued at about five million dollars per year. On the other hand American manufacturers have sold paper in foreign markets to the amount of eighty million dollars during the ten years past; but in the same period the United States has purchased seventy million dollars' worth of paper and paper goods from manufacturers abroad. Over fifty different countries have made separate enumerations of paper in their official statements of exports and imports, which shows that one of the potential products of today is that used in connection with printing, which is used in all



"Germany is the chief source of all the imported paper coming to this country"

nations and in all climes. The increased production and lower cost of paper for which the wood pulp is used have spread knowledge and aided in the development of the world as has no other single product of commerce. Without an abundant supply of paper, even the potent printing press would be like a great gun with no ammunition.

* * *

AS I was leaving Washington one evening, on the eight o'clock train, a company of laughing, gaily dressed young people followed into the car a gentleman and lady; in the folds of their garments I observed rice enough to feed a Jap family for a day—and drew my own

conclusions. It had not occurred to me, in my recent study of rice culture in the United States, to think of the festive use at weddings of the white grains which we associate with the Mongolian dietary.

One of the veterans of the Department of Agriculture, Dr. S. A. Knapp, has been identified with the development of the rice industry in the southwest, and he is a perfect mine of information on this subject. Many farmers from the northwestern states have settled on prospective rice farms and dug ditches and erected canals, going at the work in a systematic manner, until production has increased beyond their wildest dreams. Probably very few people know about the new rice fields in eastern Arkansas. In several counties the industry has shown remarkable possibilities within the past few years. Some

of rice-growers. A new variety of seed, which appears to be immune from this plague, has now been obtained from Madagascar, and experiments are being made with it.

The first rice grown in this country was brought to South Carolina by a sea captain and was planted in Virginia. Southern rice lands are now handled on a plan which is very similar to that pursued on the



"In the folds of their garments was rice enough to feed a Jap family for a day"

of the prairie lands about Lonoke and Stuttgart have been dyked and flooded by pumping up some of the great underflow of pure water which is found near the surface.

The Department has an experimental rice farm in South Carolina, where valuable experience is being collected. As there is some drawback in all forms of agriculture, so "neck rot" has proved the bane



"Isn't the coast of Ireland red with those fish?"

large northwestern wheat farms. In appearance a rice crop somewhat resembles wheat, though the mode of cultivation differs. The seed is sown by machinery, and when the plant is six inches high the fields are flooded, the roots of the crop remaining covered with water for weeks.

Over thirteen thousand gallons are absorbed by every acre during the day. Before harvest the water is turned off and the land is allowed to dry. Great care is taken, when the rice is in the shock, to prevent fermentation. When the grain is taken to the mill the outer chaff is removed by machinery, and to us it seems hard to believe that before this process the rice is yellow or straw color. Rice-eating countries do not allow the polishing process required for the American trade; thus the people get the full nourishment from the grain, as we are now endeavoring to do by urging the use of whole wheat.

In Europe and the United States, however, where the highest degree of intelligence is generally established, rice is erroneously considered unfit for food unless pearly white, and it would be hard to sell in these markets rice in any other form.

* * *

THE Washington Congressman was just entertaining a friend who had formerly arrived from the "Old Sod," but had attained fame as the man who had carried "the fourteenth precinct in the twenty-second ward." With such a visitor to entertain the Congressman thought the best thing was to take him to Harvey's Lobster Palace. The gathering there somewhat impressed Pat, but when the waiter placed before him a great, rich, red lobster, set down with an airy and nonchalant wave of his hand, Pat's eyes opened a trifle wider than usual with astonishment.

"You did not get anything like that in your native town," remarked the entertainer. "These red lobsters are considered a delicacy suited to the palace of a king, and I understand were in high favor ever since the time when Nero insisted on having them for every meal—have you ever seen one before?"

"Ah, go on wid ye," was the reply. "Seen one? Isn't the coast of Ireland *red with those fish*—although a few of them have escaped lately and come across and got into Congress in Washington."

* * *

A PATHETIC story was recently related concerning Wendell Phillips, who during the last days of his life lived alone in his old Essex Street home. The floor of his room was carpetless and no curtains shaded the windows, which looked out upon the many skyscrapers that had closed in upon the old house, seeming about to smother it, as they had threatened to do with the Webster mansion on Summer Street and Church Green. The best days and love-life of the great orator's stormy career were associated with those familiar rooms and he pleaded eloquently before the indomitable "condemnation committee" that his old home might be spared to him during his lifetime, offering to leave it

by will as a free gift, provided he might end his days in peace in the room he knew so well. The juggernaut of building development was not to be turned aside, even by the touching plea of his palsied hands and quavering voice, and the wave of "improvement" swept away the home in which Wendell Phillips had hoped to dwell in his old age. He, whose ringing voice and eloquent gestures had stirred



The old house on Essex Street, Boston, where Wendell Phillips lived during the last days of his life

the souls of many myriads, was powerless to influence the members of the committee, or persuade them to stay the wave of street and city renovation which surged upon him in the sere and yellow winter of his life.

* * *

A MEXICAN editor was greatly disturbed in his mind because of the simple attire and appearance of President Taft, as compared with that of President Diaz, during the meeting at the border. His remarks upon this point recalled the excursion made by the White Squadron, costing millions of dollars, which was regarded by many as a frightful waste of money for mere display, despite the results which have followed from that showing of strength. Possibly persons holding these

opinions might have been as much mortified as was the editor aforesaid in regard to the wilted collar and suit, "which did not seem his own" of President Taft, in strong contrast to the appearance of President Diaz, clad in the grand uniform of a general, and looking the very personification of dignity and official splendor.

Again the Mexican editor was greatly shocked that the President of the United States should have ridden in a coach "which might have been a public conveyance," while the president of the other republic sat in state in a magnificent landau, drawn by handsome, well-groomed horses. In equally strange contrast were the khaki uniforms of the United States soldiers compared with the gorgeous military trappings of the Mexican soldiers. What shall be said in reply to a challenge in regard to this American negligence? Perhaps the homes of the two republics might not furnish a contrast less unfavorable to the United States, for the American

when merchantmen will plough up and down the great waterway, going from the great fields of the West swiftly and directly to Liverpool. When this river and its tributaries are properly utilized, there will be a much more remarkable equalization of transportation rates than could be effected by any government edict or ambitious rate laws. The use of the waterways will also be a powerful factor in the development of the South and Southwest.

* * *

HAVE you not had some of those wonderful early morning dreams, those startling "manifestations of the sub-conscious"? You know just how it is—the brilliant dream is there all right, but tired and sleepy nature does not favor arising to put it all down in writing. Betwixt waking and sleeping I had what I supposed were some great ideas, and thought it my duty to preserve them for posterity by following the example of the great essayist,

Ralph Waldo Emerson, who always wrote down a thought when it came to him, on a tablet near the bed. In the dim light I groped around, knocking chairs about, and at last discovered paper and pencil; when I believed that I had those great ideas hermetically sealed, encased, and crystalized into language, I returned for one more nap.

Nothing would induce me to divulge what I found written on that paper pad, but when I read

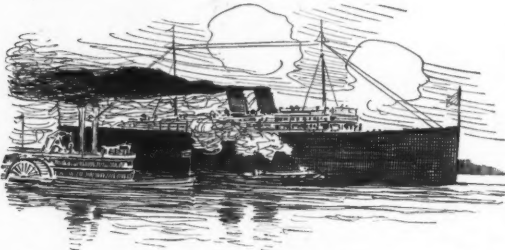
those great thoughts in the light of the morning, there came to my mind the story of the good man who had read and heard much of the philosopher's stone. One night he awoke from a sound slumber, grasped his wife by the arm and cried, "I have found it; I have found it."

"What," said the lady drowsily, "the baby's teething pad?"

"No, no," he shouted. "I have found the philosopher's stone. It is a secret, and it has been revealed to me in a dream. If I tell it to you will you be sure to remember it in the morning?"

"Better get up and write it down," drawled the good lady.

Stumbling over the cradle, stubbing his



The great battleship "Mississippi" on her way up the river of the same name

nation must always be a nation of homes. These two presidents, if they represented republics, represented as well homes and the plain people first, with empirical display as only an incident.

* * *

THERE was something of the enthusiasm of the former days among the descendants of the old river steamboat men when the great battleship "Mississippi" found her way up that historic stream. The feeling was universal that if a big battleship could navigate the Mississippi there was no reason why ocean steamships should not do the same. Residents in that region hope to see a day

toe against the leg of the bureau, throwing down a chair with a loud crash, and pushing his watch off the bureau, at last he reached his study, lit a candle—for all this happened long ago—and wrote down the magical secret. Sighing "it is safe now," he returned to bed and slept the sleep of achievement.

In the blaze of the morning sunlight, even before he made his toilet, he sought the precious piece of paper which he had imprisoned beneath a great dictionary and complete set of the works of Shakespeare. Holding the magic secret which should bring him unaccountable wealth his hand trembled. He almost feared that it might be in ancient Chaldean, which would take months to decipher. No, it was plain English and read,

"Walker with one leg,
Walker with two,
I have a new boot,
Which won't fit you."

From that time forth the head of the house disliked the word "Walker" so much that no one would dare to introduce him to a man of that name, or mention it in his presence, while the subject of dreams was forever tabooed in his home.

* * *

IN a recent issue of the *Yorkshire Weekly Post*, "price one penny,"—one of those staid, conservative publications from which Englishmen take their cue—appears a long and critical statement regarding the doings of Theodore Roosevelt, and the fact that he is making use of the prairies of Africa as "a playground." The *Post* makes no mention of the thousands of "idle honorables" who visit the prairies and cities of the United States, and carry off not only wild animals, but rich American girls, but it protests:

"We have not built railways through the jungle, and across the stupendous dip in the land which is happily named the Rift Valley, merely to provide a rare show of wild animals for tourists, or suitable taking-off places for discriminating and indiscriminating hunters. Nowhere else in the world can immense numbers of zebra, hartebeeste, and wildebeeste be seen in their natural state from the

windows of a railway train. Part of our mission in East Africa is to preserve its wild game so long as the interests of the natives and settlers are not injured." (Not a word about income derived from the shooting licenses.)

The writer goes on to tell how the railroad was planned in the belief that it would be a more economical way of stopping the horrors of the slave trade than the original plan of keeping five war cruisers along the coast. Each year the British exchequer provides over a million and a half dollars to pay off the loan on the railroad, and this payment must go on until 1925. Meantime the railroad receipts each year are not one-third of this



"Railway through East Africa providing a show of wild animals for tourists"

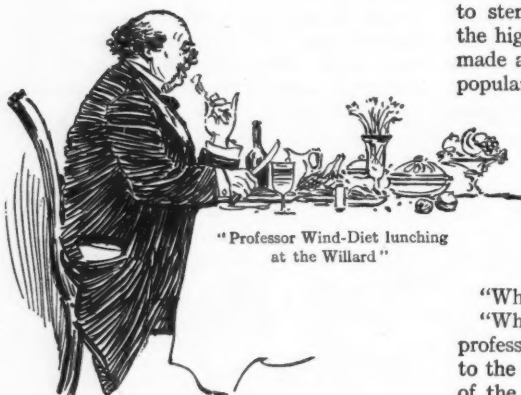
sum. Under these circumstances, any American road would welcome passengers, especially profitable ones like the Roosevelt party. The insular view of the matter is certainly comical—because the railroad does not pay they are indignant that foreigners should have the benefit for something that has cost them so dear. The *Post* seems to forget that foreign money has pretty good value when British gold fails.

Judging by the present tone of the British newspapers, the English government has at least learned that the residents of a country are the best aids to its development, and everything possible is being done to insure happiness and prosperity to African natives; the black races are now providing by far the larger proportion of the revenue raised by taxation

in the African Protectorate. As the *Post* says, "Their well-being is essential to the prosperity of the country."

* * *

THE status of the scholar in America has been the subject of earnest discussion among literary men for years past, often forming a theme for discussion at Washington. It has been pointed out by Mr. Andrew Lang that as there are no baronetcies to give to learned Americans,



"Professor Wind-Diet lunching at the Willard"

there appears to be no especial distinction to which the scholar of this country may look forward; he has nothing to expect except emoluments in political service or business. He also remarks that in Germany and the United States most of the scholars are exclusively university professors, while in France and England many of the great scholars are entirely outside the institutions of learning.

It cannot be expected that the public will pore over mathematics and obscure metaphysical propositions. Even the Greeks, enthusiastic over learning as they were, did not feel any excitement over the teaching of Socrates, and Theocritus relates the pathetic fact that his own poetry proved a drug on the market. However, the time may come when United States scholars will find a wide and appreciative circle to admire their attainments, though no high-sounding titles may be bestowed to distinguish them from less learned citizens of the Republic.

AGITATION of the high cost of living has been the latest thing to stir up the senatorial mind and secure an investigation. Every time that it is desirable to quiet surging excitement in popular feeling "a probe" is announced. A lecturer has recently arrived at Washington to tell how the latest "probe" may be withdrawn and the difficulty met by living on fifteen cents per day. It was suggested that it would be an excellent thing to have him work with the "probers" and lecture in the city and help in this way to stem the tide of emotion relative to the high cost of living. An inquiry was made as to whether his lectures had been popular with the Washington people.

"Is Professor Wind-Diet doing well with his lectures on how to live on fifteen cents a day?"

"Fine, fine," was the reply. "I met him in the Willard after one of his lectures, the other evening, making heavy inroads upon a five-dollar dinner."

"What about his fifteen cent theory?"

"Why, I guess, when it applies to the professor himself, the fifteen cents refers to the tip he leaves behind, to the disgust of the garcon."

* * *

THE faces of the members of President Taft's cabinet are now becoming familiar to Washington people, and the point of comparative elegance and style in dress is being discussed. It has been decided that the palm lies between Postmaster-General Hitchcock with his long, flowing coat, without a crease, dainty lavender tie and carefully combed hair, Attorney-General Wickersham and Hon. George von L. Meyer, Secretary of the Navy. To those impressed by quiet elegance the prize would be given to General Wickersham, who wears rich-looking garments, though it has been said that the fact that he always arrives in a carriage, provided by his department, may have something to do with his spick-and-span appearance. Secretary Meyer's clothing always has an English cut, whereas Mr. Hitchcock's garb may be called distinctively the latest fashion plate from New York.

Sergeant Black's Last Memorial Day

Wattland & Ryalsborne

WILLIAM BLACK—Orderly Sergeant Black on the rolls of his old company; Bill Black to an unappreciative and forgetful public—was the village ne'er-do-well of Fairfield. He had served his grateful country at the Battle of Bull Run, at Fair Oaks, Vicksburg and Chickamauga, had followed Sherman "to the sea," parted with his left arm in her defense at the Battle of Five Forks, and had gone back to the ways of peace with shattered body and weakened will to enjoy the pension of sixteen dollars per month bestowed upon him by the grateful country aforesaid.

That the greater part of Sergeant Black's pension regularly found its way into the till of the village tavern quite properly caused those conversant with his failings to forget his record of "distinguished bravery," and inspired them to sneer at the ridiculous practice of paying pensions for old sots like him to get drunk upon.

But Sergeant Black did not mind the sneers. Once he would have minded—but that time was past. He had marched away to war as strong and straight and proud as any man in his company, with his young wife's kiss fresh upon his lips and the memory of her bonny brown eyes glowing warm in his heart, and had crawled back again after four years of weary marching and fighting and starving, worn and spent, with the taint of Rebel prisons upon him, to lay a little bunch of the flowers she had loved upon a fresh-heaped mound. Then he had brushed his one remaining hand across his eye and stumbled away along the path of loneliness.

Amy had left behind her a baby boy, to be promptly adopted by her maiden sister and trained up according to the dictates of her stern New England conscience. She argued that William Black could not for a moment be considered a

fit guardian for an infant child, and meekly he assented to the decree that robbed him even of the rights of parenthood. As the years went by, increasingly conscious of his own shortcomings, he more and more effaced himself, till in time he came to be almost a stranger to his son.

The only treasure left to him was memory—the only boon he craved was to forget. The blood he had freely shed on fierce-fought fields crystalized into a handful of paltry dollars every quarter, with which he could purchase welcomed oblivion. So his habitat became the village tavern, and his manner of life to be abhorred by the virtuous ones who had remained by their own firesides and offered up petitions for peace while they fattened on government contracts.

Yet Sergeant Black was not universally despised. A comrade whose life he had saved at Cedar Mountain at the risk of his own did not forsake him, and the children of the village loved him—loved his absent-minded, gentle manner and his kindly ways; and his little tumbled-down shanty across the river from the village sheltered always a few outcast cats and dogs, broken and useless like himself.

At only one season did Sergeant Black appear in the habiliments of respectability. On each recurring Memorial Day, clad in his old uniform, shiny and worn, but carefully brushed, with the left sleeve pinned neatly across his breast, he would take his place among the men in blue, gray-haired for the most part like himself, bent, and toil-worn, who stood with uncovered heads while the white-haired minister—the "fighting parson" of his old company—invoked with quavering voice the blessing of the Great Commander upon the memory of the fallen whom they had assembled to honor.

In time the boy—grown to be a man—married, and one day the news reached

William Black that he had a grandchild. They named it Amy, and they let him hold the tiny brown-eyed image of the Amy he had known long years before for a moment upon his arm, till the little tears of recollection flowed down his cheeks and sudden sorrow for his wasted life shook his form with sobs.

Only the pitying angel of forgiveness knew the battle that he fought for weary weeks thereafter, but William Black had taken his last drink. Never again after Amy's eyes looked up into his own out of the face of his grandchild did he enter the door of the village tavern. And never did a toddling, lisping child have a more devoted slave and nurse than the little Amy. With infinite solicitude he guided her first tottering footsteps across the floor, watched sleeplessly by her side through measles and croup, soothed all her childish sorrows, and painstakingly taught her to form her first scrawling letters.

Then, too, he could tell her fairy stories by the hour, and sing her to sleep with the martial strains of "When Johnny Comes Marching Home" and "Tenting on the Old Camp Ground." But best of all Amy loved to sit on his knee in the hour preceding bedtime, cuddled snugly against his sheltering arm, while he told her endless stories of the heroes that he blindly worshipped—Grant and Sheridan and the rest of that brave and gallant band, and of the great and good Lincoln himself, and the meaning of each star and stripe of the glorious flag he loved.

* * *

Memorial Day of 1905 dawned bright and fair, and the sun, looking in through the window of his cabin, discovered Sergeant Black making ready for the one day of all the year that he looked forward to—the day when he was counted worthy to stand shoulder to shoulder with his old comrades as they marched slowly down the dusty village street to the quiet God's acre where others of their comrades lay.

With but one hand to do the work of two, Sergeant Black was a long time in completing his preparations, but at last he had brushed and donned his old uniform, kept carefully folded away out of the dust for the balance of the year,

shaken out the folds of the little silken flag he treasured—the flag that Amy's loving fingers had fashioned—and at eight o'clock was making his way along the railroad track toward the village.

Already it was oppressively warm down there in the rock-cut where the breeze did not reach, but some of the "boys" would be coming down from the next village on the morning train, and he wanted to be at the depot in time to welcome them, so he tramped along almost buoyantly, if not as briskly as he would have done thirty years before.

A quarter of a mile beyond him the track swept in a wide curve round the hill, then straight across the river to the village, nestling in the valley beyond. When he came to the bridge he stepped carefully from tie to tie until he had reached the middle, where he paused for a moment to let the refreshing breeze cool his brow. Beneath him the swift-rushing stream gurgled against the framework of the bridge. From this spot he had often fished in the intervals between the infrequent trains for the greedy bass that lay in the shadow of the bridge. Now, as his gaze wandered up the river, he became aware of a moving dark spot on the water just within range of his vision. He watched it for a time, wondering what it might be, until he was able to distinguish an enormous log, adrift from the boom of the sawmill further up the river.

Down it came on the breast of the swift current, heading straight toward where he stood. As he watched its silent approach, he speculated idly as to whether it would pass through the arch or lodge against the bridge. Before any thought of possible danger had occurred to him the huge mass of wood was hurled with the force of a gigantic battering-ram against the timbers that upheld the center of the bridge. The shock nearly threw him from his feet, and looking down to see what damage had been done, to his horror he discovered that the wooden framework, weakened with age, had crumbled like paper at the impact, leaving the track suspended in the air, supported only at either end.

He recognized the danger at a glance. To the engineer of an approaching train

the bridge would present its wonted appearance, but any train crossing it in its weakened state must inevitably be precipitated into the river below.

With the idea in mind that he must hurry to the village and give the alarm, he started as fast as he could run along the track. But hardly had he gone a hundred yards when he heard far behind him the whistle of the morning train. Long before he could reach the depot the train would be on the bridge. He must stop it himself—but how?

Hurriedly he retraced his steps, panting and stumbling in his haste. In crossing the bridge he missed his footing several times and came near falling into the stream. But in a few moments he was across and running around the curve in the sweltering heat at the top of his speed.

As the approaching train neared the curve, the engineer was startled by the apparition of a white-faced, bare-headed, blue-clad figure stumbling toward him in the middle of the track, wildly waving a small flag as a danger signal.

A long, shrill blast of the whistle echoed among the hills, and the startled passengers craned their heads from the car windows as the train slackened its speed. It was almost upon the blue-clad figure, still desperately waving the flag in warning.

Too late he took thought for his own danger and attempted to step from the track. Exhausted by his exertion and bewildered by the warning blasts of the whistle, he stumbled. The engine struck and hurled him with cruel force against the rocks beside the track.

Hardly had the train come to a standstill when a dozen men in army blue were gathered about the pitiful figure lying in a huddled heap upon the rocks. As one of them tenderly lifted his head from its hard resting place, Sergeant Black's fast-glazing eyes opened and he gasped, "The bridge—don't cross—the timbers are bro—"

His welling life blood choked his utterance and stained with vivid crimson the blue field of the little flag tight clasped against his breast.

"TAPS"

By A. VAGRANT

They are marching with a halting step,—

A halting step and slow;
And many in those blue-clad ranks
Have hair as white as snow:
Their youth lies on the battlefields
Of forty years ago.

The faded, tattered flags they bear,
All torn by shot and shell,
Are sacred emblems of the dead
Who loved their country well:
How great their love and sacrifice
No human tongue may tell.

Those serried ranks are thinning fast
That once with martial tread
The knapsack and the musket bore
Where Grant and Sherman led:
Their sleep is sound and peaceful
In the bivouac of the dead.

No more the reveille at dawn
Shall rouse them from their sleep;
No more shall wives and sisters mourn;
No more shall mothers weep;
Their names upon the roll of Fame
Time's hand has graven deep.

And some ~~He~~ on those hard-fought fields
Where now the Blue and Gray
Clasp hands across the battle lines
Their blood has washed away:
Where once the tide of battle flowed,
Their children's children play.

The passing years speed swiftly.
And silence round them wraps;
And to their listening ears there comes
No sweeter song, perhaps,
Than when the battered bugle sounds
Again the old call—"Taps!"

—From "Pipe Dreams."

POLITICAL HEALTH OF THE NATION

By ROBERT L. OWEN

U. S. Senator from Oklahoma

THE inability of the American people to get relief from high prices, from a high tariff, from corrupt campaign contributions, from corrupt municipal government, from corrupt state government, is due to *one vital fault* in the American political system. In a vital spot the nation is politically sick, and every evil consequence of bad government flows from this source.

That fault is a system by which commercial interest *may make alliance* with men interested in politics as a business, and who are influenced in following politics merely for profit.

Since the war, *the convention as a system of party mechanism* has grown to be grossly abused and *has become an agency through which sinister commercial forces operate in the control, first of party government and second of government itself.* Under machine politics of both political parties, *where these influences operate,* you will find a precinct boss, who manages the precinct primary. He calls the primary meeting on short notice, obscure advertisement and in an inconvenient or unpleasant room. He fills the room with his own strikers; he names the precinct delegate. The members and voters of his party in that precinct do not name the precinct delegate. They are not present for various reasons.

The first reason may be that they did not know of the meeting.

Second, if they did know of it, they knew it would be upstairs in a back room over Tim Sullivan's saloon, and they did not like the place.

In the third place they knew that Sullivan, the precinct boss, would have the room full of his strikers, and that one or two independent citizens had no show in that primary.

A fourth reason was possibly that politics had been made disgusting to the ordinary citizen by the notorious rascalities which had taken place before, and had made the

duty of a citizen to attend the primary offensive.

Whenever *the precinct delegate* was named by Tim Sullivan, the precinct machine boss, *then and there departed the control of the members of the Republican party* of that precinct and of the county and state and congressional district. Thereafter the precinct delegates had all nominations and all platforms within their sacred keeping. The same thing, of course, is true of proceedings under like Democratic machine processes where they exist.

Thereafter the precinct delegates met in county convention, or municipal convention and selected delegates to state conventions, or to the congressional district conventions.

Thereafter the state conventions of machine delegates nominated the delegates to national conventions where national platforms are written and presidents nominated.

Thereafter state conventions made up of machine men, just as far as this system happens to prevail, will write state platforms and nominate candidates for state officers from governor down.

Under such a system of party government, men desiring high political position or great political power find it necessary to control the machine or to be controlled by the machine. The building up of a machine is a natural outgrowth of human nature and of human ambition and human intelligence which puts together the factors necessary to success.

In many of the states, in part or in whole, one party or the other party, or perhaps both parties, are absolutely dominated by the machine.

Commercial interests find a potent ally with the men who control the state or city machine of either party or of both parties.

These commercial interests furnish money when necessary, and only when

necessary, on a large scale or a small scale as their interest seems to justify, and in this way are able to influence nominations and influence state, county and municipal platforms and political issues, and are able to influence the action of legislatures, national, state and municipal; are able to influence the action of executive officers, national, state and municipal.

What do the machine politicians care for the unorganized clamor of the people? Their only fear is on the day of the election, and if commercial interests can nominate candidates of both parties, such commercial interests need not fear the result, even on the day of election. I care not who elects if I can name the candidates of both parties. *Selection is more important than election.*

It is easy to perceive how this evil condition can be remedied. The members of the Republican party in every precinct, in every state where machine politics are entrenched should organize a liberty league or a Republican league, with a president and secretary, and with a postal vote, and through the postal vote, without leaving their homes, should nominate the precinct delegate and every other candidate, if they like.

Will you suggest that the political machine would pay no attention to the nom-

ination of the majority of the members of the party in the precinct of the precinct delegate? I answer that a federation of such precinct liberty leagues could sweep the machine out of existence and defeat every candidate named by the machine; that such an organization of precinct leagues throughout the state could be easily accomplished, and in that contingency could by postal vote name its own delegates to a state convention, who would represent the rank and file of the party and could oust from position any political party theretofore existing.

The same policy pursued by the members of the Democratic party would break down the evil consequences of machine politics and restore the political health of the nation in both great parties. The nation has been sick with political corruption, with political selfishness, with political self-seeking and with a corrupt alliance between machine politicians and commercial interests engaged in the exploitation of the American people by artificial high prices, by national statute, by state and municipal contracts. (Witness Pittsburg.)

Let Republican Leagues and Democratic Leagues be organized to oust the machine politician of both parties, and we will have the national political health restored.

PLUCK WINS

FROM THE BOOK "HEART THROBS"

Pluck wins! It always wins! though days be slow
And nights be dark 'twixt days that come and go.
Still pluck will win; its average is sure;
He gains the prize who will the most endure;
Who faces issues; he who never shirks;
Who waits and watches, and who always works.

THE NEW ARKANSAW TRAVELER

By NATHAN B. WILLIAMS

THE traveler has ever been an object of interest. His stories of places and peoples, his recitals of change and material development in the countries he has visited are ever received with live attention.

Three wise men journeyed to Jerusalem. The instinct of travel has carried our explorers far into the frozen North. They have covered and chartered the whole globe.

The old Arkansaw Traveler, he of the song and story, early found the delights of existence in his adopted state. The genius of an Arkansas citizen, Col. Sandy Faulkner, caught the most picturesque of his species and fixed his place in literature. The story is a familiar one. It has in the past been used as a symbol of the supposed unprogressiveness of the people of Arkansas. Many columns of newspaper type have been used in an attempt to deplore its publication. It has been declared to be a base slander upon the people of the state, but there was a day when the idyllic existence therein pictured was no wild stretch of the imagination.

The frontier fiddler was a type. Many of the crude witticisms told in the story were early heard in New England, Virginia, New York and Indiana. The only real Arkansaw travelers, who yet exist, are those who have not yet learned by exploring the "big road" that the original type no more lingers within the borders of Arkansas, than in any other community of this great country.

Perhaps you have at some time smiled, indulgently, at the naivete of the replies of the frontier fiddler. A fiddler who was never able to get past the "turn of the tune." You must know that the piece of music which bears the name of "Arkansaw Traveler" has a turn in the tune. This fiddler as pictured in the story, was never able to get past the "turn in the tune," but the new Arkansas citizen has reached and passed the turn in the tune and is well down the highway of progress.

The original Arkansaw pioneer when asked as to why he did not repair the roof of

his cabin, is quoted as saying; "that when it was dry it did not need repair and when it was raining he could not fix it." When he was asked by Col. Faulkner where the big road went to, replied: "He did not know; that it had not gone anywhere since he had been there."

Thus we have the supposed original Arkansas farmer, fiddling away but never getting past the turn of the tune; his cabin out of repair, the roof falling in, his corn "yaller" because he had planted the "yaller" kind; a splendid and magnificent picture of indifference to surroundings and of the future; fiddling away but never getting past the turn of the tune.

But he has now reached and passed the turn of the tune. Instead of a coon-skin cap, he now wears a silk tile or a five-dollar Stetson. Instead of a cabin, his home is modern and well equipped. He has embraced and put to practical use the accumulated knowledge of the State University and the original type is quite extinct. But there is a more modern type of Arkansaw Squatter who is found everywhere; not alone in Arkansas, but in every community; in the halls of legislation, in the pulpit and the professions, in every walk of life.

Wherever men see disease, poverty and degradation about them and make no real, earnest endeavor to make such conditions impossible, their failure to act is for the reason that they are unprogressives.

A town or city which has not plenty of parks and playgrounds is full of Arkansaw fiddlers.

Disease-breeding tenements are kept and permitted by the same type.

None of these have yet reached the turn of the tune.

But we are reaching the turn of the tune. The old order changeth. New ideals of civic duty and responsibility are everywhere being realized. We have reached the turn of the tune in municipal corruption. No longer is bribery a "conventional crime."

Public officials are coming to know that they are the "hired men" of the whole people. The people have reached and are getting past the turn of the tune. The Arkansaw Traveler, symbolic of the growth and development of this nation, you are coming into your own!

In Arkansas, the turn of the tune has been reached. The broad highway which passed the fiddler's door now leads to great cities. It winds along the banks of the beautiful White River. It leads through rice fields and among cotton plantations where grows the wonderful long staple, sought by the buyers of the old world at twenty-five cents per pound; through great forests of virgin elm, oak, cotton-wood, cypress, pine, walnut and hickory.

At every turn of this road is a school-house or college and new ones are building every day. Our road takes us to the only diamond field in America, Pike County, Arkansas.

Slate of every color and shade to tempt the artistic architect is found in abundance. Beautiful black marble, zinc, lead, antimony, cement, phosphate and pottery clays but await the turn of the tune in their development.

Our traveler now follows the road to the vineyards and orchards of Arkansas, to where the ever pleasant rays of the sun kiss the purple and amber into the grape, for be it known that the native grapes of Arkansas have presented to the world some of its most splendid varieties. He visits some of the largest strawberry fields in the world and notes the abundance of other small fruits. The fig and the orange are to be found in the southern part of the state, while among the beautiful Ozark Mountains of the northwestern part of the state grow the most beautiful and finest flavored apples of the world. Evidently the Ozark plateau is the original home of the apple. More new varieties of the apple have been produced and developed in this section than in any other part of the world. The counties of Benton and Washington in northern Arkansas have each more apple trees in them than there are in any other counties in the world.

Geologists tell us that the Ozark plateau is the oldest land upon the western hemisphere. What were once rugged mountains, as they rose from the waters of the earth,

are now gentle hills and pleasant valleys. Their beauty never tires. Here the industrious husbandman in ever increasing numbers is finding the turn in the tune in his efforts for a prosperous and happy existence.

It being true that this is the oldest land in America, then of a certainty here was the Garden of Eden and the apple used by Eve to tempt Adam was a Shannon Pippin, a native of Washington County, Arkansas. No wonder Adam succumbed. If you have not yet inhaled the aroma of this most delightful apple or experienced its delicate flavor, there is a glimpse of paradise yet in store for you. Here the great artist paints the downy skin of the peach till it takes on a blush never equaled by a Chase or a Sargent.

Politically, Arkansas has reached the turn in the tune. Instead of a professional politician, a contractor and business man is Governor. Service is the watch-word of its officials. Fitness is the test applied by the voter to candidates for office. Numerous instances of breaking away from party lines occurred in the election of 1908. We record facts not personal opinions.

The South has reached the turn in the tune. A generation of strong young men, who have come to maturity since the turmoil of Civil War, men who are intelligent and educated, are coming into the thought and destinies of the South; that most thoroughly American section of the United States. The men were born and have developed among pleasant surroundings. The greed of money-making has not touched them. This corruption of ideals has been prevented by the ease with which a competency may be secured in this favored clime. They have inherited the traditions and facts of personal honor and civic integrity which distinguished their forefathers and in the settlement of national questions and in determining national ideals will be heard to good effect. Patiently have they labored to overcome the poverty and destitution left by the war. Lovingly and tenderly have they cared for the widow and orphan. With kindly solicitation they have kept their fathers and grandfathers in the places of public honor and trust, but these grand old men, who loved honor better than life, are rapidly passing, leaving a rich heritage to those, their children; a heritage whose influence will be long felt, remembered and cherished.

These men, having re-built and re-established their country, now see the turn of the tune. They invite honest men and women from everywhere to share in the future glory and development of the sunny Southland. Many new travelers are coming in increasing numbers. They behold the turn of the tune. The nation has awakened to new conceptions of duty and responsibility. This section is but now catching the spirit of a great awakening in material development; its boundless resources conserved and reserved for the

development of a great people whom riches will not corrupt nor serious problems dismay.

Behold the turn in the tune! Its rising cadences shall fill the world. Its sentiment will touch the heart, its beauty thrill the soul. The present generation will catch its spirit—has caught it. Dying happy, its notes will attend them and they will desire no finer epitaph than that they were Arkansans and contributed their part in the upbuilding of their beloved state and the greatness of the American Union.

Easy Roads Do Not Lead to Ease

By Herbert Kaufman

IF you try to make life *too easy*, you'll soon find it *too hard*. *Ambition* is a *dream* without an *awakening*, unless it makes your *will* as eager as your *wish*. *Effort* is *exercise*; endeavor produces *endurance*.

It's no *trouble* to cut through *butter*—but it won't develop *strength*. The *hewer* of *stone* wears the *strong arm* and bears the *long labor*.

Persistence is the key to *existence*. Success *invariably* rewards the *good fight*. Knowing *what* to do or *how* to do it won't bring results. *Action* must drive *ability*. The *nail* is *useless* without the hammer. *Courage* is the *complement* of knowledge.

Easy roads do not lead to *ease*. *Worn paths* run to *spots* and *things* which *others* have already found.

Opportunity is trampled *underfoot* in the *crowded thoroughfares*. The *greater chances* always lie *ahead*.

But the *price* matches the *prize*. If you *want* more than the *average* you must *pay* more to *secure* it. You can't buy with *counterfeit attempts*. The *true coin* of *accomplishment* bears the mint marks of *grit* and *honest labor*.

You can't have *our best* unless we have *your best* in *return*. You can't *arrive* unless you *survive*. Half journeys are *wasted*. Only the *stride* which lands you at the *finish* counts.

You can't take *pleasure* and *indulgence* with you in the *climb*. You must forego temptation and cut out the *short cuts*. The *wrong road* is *never* a *long road*—*therein* lies its *danger*.

If you meet with *brambles* and *boulders*, reflect that there are *fewer* toward the *end*. The more *rugged* you find the way, the less *likelihood* that you've been *preceded*.

You need no *capital* but a *fixed idea* and the *resolve* to carry it *out*. Want a thing *harder* than the world wants to keep you *from* it, and you'll wear through every *opposition* and *get* it.

Mere *knowledge* isn't *competition*. The man who *secretes* must *give way* before the man who *creates*. A *bulging forehead* can't conquer a *squared jaw*.

When old Henry Harper died he willed his *millions* to *charity* and his will to his *sons*. This is the letter which they found in his strongbox:

"I gained my money from men *weaker* than *myself*, and I *return* it to them. If you are *strong* enough and *bright* enough to *retain* my estate, you have the *necessary* tools with which to build one of your *own*.

"If you *cannot* succeed *without* my wealth, you *couldn't* have succeeded in *holding* to it."

"Others will think that I have *pauperized* you, but I understand how *great* a legacy I have willed you: the incentive to *prove* yourself—the *supreme right* to *test* your powers without the *handicap* of *assured maintenance*.

"Only the *builder* truly *rises* above his *fellow*. Go out into the world to *earn* and thereby *learn*. Rub against men and get an *edge*. Enjoy the most *supreme* of all *recreations*—the thrill of *creation*."

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The Panama Canal as it IS

By *Sir Mitchell Chapple*

DOWN to the wharf we dashed in taxis—doesn't that sound swell for editors?—and boarded the United Fruit Company's steamer "Turrialba," a staunch and beautiful new ship, named after a Costa Rican volcano. Loth to leave New Orleans, we had lingered until the latest possible moment.

As the great ship swung from her moorings into the Crescent Bend of the river, with her nose pointed southward, a party of Chinese among the ship's crew discharged a monstrous battery of fire-crackers, to the value of over three hundred dollars; it sounded like the *feu d'enfer* of a section of Maxims. Far above the masthead the crackers hissed and exploded. If evil spirits in truth fear firecrackers and noise, as the Celestials believe, our Chinese crew must without fail have scared off any spooks that might have been disposed to abide with us. With wildly swinging pigtailed, the Chinamen danced about the decks, determined that every cracker should detonate to the very last of the immense red strings. A fitting salute for our embarkment for Panama!

We steamed slowly down the river lest the waves in the wake of the boat, rippling on the shore on which the Acadians once dwelt, should overflow the levee. There was dancing on the deck from cake-walk to sedate waltz and hopping two-step. All the young people made merry, but the old wiseacres in the shadows on the deck murmured: "Tomorrow,—wait for the morrow—and then—"

In the morning we had passed the great jetties and were out on the turquoise waters of the Gulf, which, alas, were somewhat hash-like and choppy. The effervescent spirits of the young people were at their lowest ebb, and many seemed to have lost all appetite. Excuses were rife—they had "danced too much last night." Some passengers sat at the table and pecked at the food, ordering about everything on the menu "to find something that would taste good"; and at last hastily retired for more sea room. Personally I thought I knew now how Lady Gwendoline, the heroine of the dime novel, felt when she "toyed with her fork."

On board were Henry W. Savage, the well-known theatrical manager, and his party, bound for Swan Island, bent on having a real Robinson Crusoe outing. One of the young ladies insisted on giving us *da capo* of the "Merry Widow" waltz, "before and after each meal," as the medicine label hath it. There was also Captain A. Adams, "King of Swan Island," who for nearly thirty years has lived on this tiny islet in the Gulf of Mexico, about a hundred miles from Honduras. Many were the exciting narratives which the weather-beaten sea captain related about his cruises all over the world, before he settled down in peace and comfort on this beautiful island in the Caribbean.

We first made Cape Antonio, the most western point of land in Cuba. As the lighthouse loomed up in the distance, glasses were levelled, but the sea continued



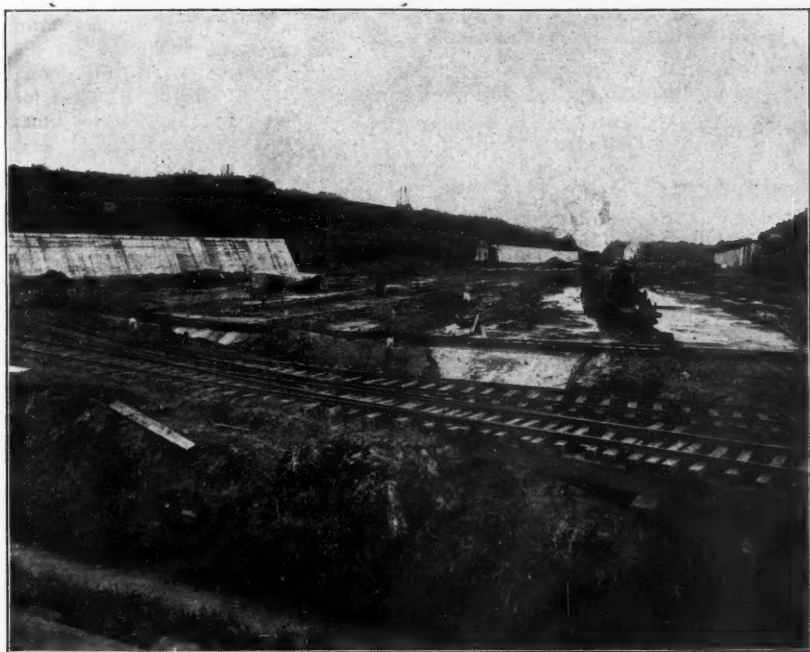
A VISTA OF THE CULEBRA CUT WHICH SUGGESTS A VIEW ON THE HUDSON



"THE MAN WITH THE UMBRELLA" AT THE BOTTOM OF THE
CULEBRA EXCAVATIONS



NEW BRIDGE ACROSS THE RIVER CHAGRES AT GAMBOA



CEMENT WALLS BEING CONSTRUCTED AT THE PEDRO MIGUEL LOCKS

"choppy," and some passengers—always some, you know—sobered down to life in steamer chairs, and even the Pearl of the Antilles was passed with an indifferent glance, for land, without landing, is not interesting to the sea-ill ones. When Swan Island was sighted, with its great cocoanut groves gracefully waving a welcome on the horizon, in their feathery shade we could discern the capital city of the realm which Captain Adams had left some months before to visit old friends "way down east." A few weeks before our arrival the wireless telegraph operator had inadvertently electrocuted himself with his apparatus, and as the party for

ideal for bathing. The island was long claimed by Spain, but for many years was deserted, until an American placed it under the protectorate of Uncle Sam in 1852.

As the "Turrialba" proceeded, everyone was reading something about Panama. "Phancy my pheelinks," as Orpheus C. Kerr used to say, when I asked in New Orleans for "the latest book on Panama," to have a copy of the National published three years ago placed in my hand as the most recent and comprehensive description of the Canal. Books and magazines have a different flavor on board ship, and were in much demand. Mark Twain's "Innocents Abroad" was, as usual, a

favorite source of consolation to the afflicted, the chapter on sea sickness being read probably as a prophylactic for the benefit of the white-lipped patients lying in the deck chairs. Captain Clarke, who hails from Dublin town, is a typical sailor and was a favorite with all the passengers; he cheered up the patients with his jolly ways, played deck golf with those who were well, and skipped up and down the deck as blithely as the captain of the "Pinafore." He had sailed the seas for years, had been many times "around the Horn," and there was no official stiffness

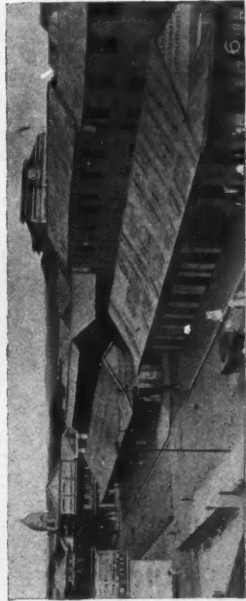
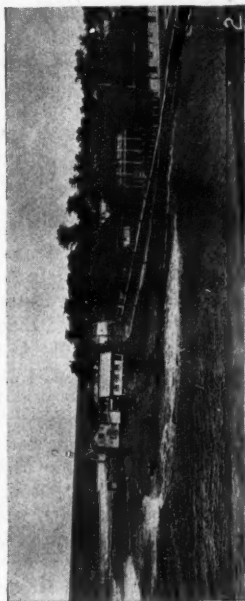
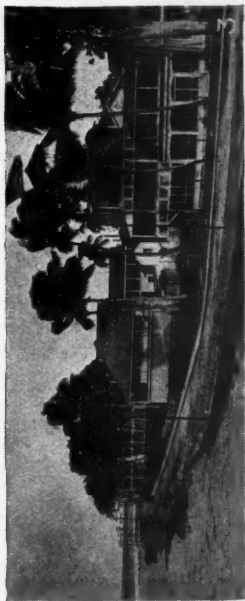
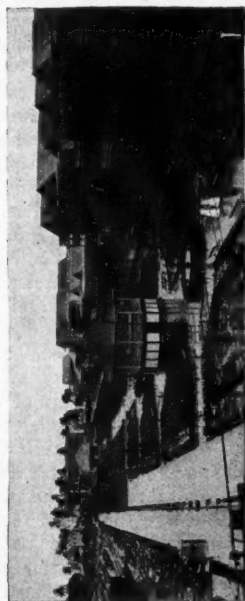


A PANAMANIAN VILLAGE, IN THE INTERIOR,
DURING THE RAINY SEASON

the island prepared to disembark in a small boat, the coffin brought for the dead man was lowered into it—a rather gruesome accompaniment to a holiday party. Mr. Savage in leaving glanced back, remarking "pleasant prospect this," as he looked down at the great casket already in the tossing boat. The island we saw of them the Jamaican oarsmen were pulling hard for the shore, the boat tossing up and down, the casket the most prominent feature of the party. The island has a mule railroad, and a fort at the northern end, built by the old buccaneers. There is a fine deposit of fuller's earth on the island and it is also rich in tropical fruit. The temperature is pronounced the most equable of any part on the Gulf, there are no reptiles, and the great, sandy beaches are

or shallow pretension in the make-up of the sturdy little Irishman. One day we found him writing up the ship's log, and he spoke of the new-fangled notion of doing away with the ordinary terms of "boxing the compass" and calling the east 90, the south 180 and the west 270 degrees; there would then be no "nor-west" or "sou'east." As we listened it seemed to us that the very basic principles of navigation were being undermined. No wonder the Hydrostatic Office at Washington took notice when a contribution under the pseudonym "Neptune" appeared in the *Marine Journal*, and told the scientific fellows a thing or two about practical navigation.

In the bright glare of the tropical noon-day we came into Colon. At times the



1. View in Colon Park after a tropical shower.
2. Shore line at Colon, near Columbus statue.
3. Roosevelt avenue, Colon, a popular shore drive.

4. A view of the surf at Colon.
5. New railroad station at Colon.
6. Glimpse of Fourth street, showing improved sanitary conditions.

Colon docks do not afford safe anchorage, and when there is a "norther" coming the vessels lying there pull out to sea. It was almost like reaching home to see the familiar wireless pole and the shore-line rimmed with white surf of the Caribbean breakers. Dr. Pierce, the quarantine officer, felt our pulses and looked into our eyes to see that we did not smuggle infectious diseases into the Isthmus. We landed in full



C. R. ERWIN OF THE ZONE POLICE

uniform—white suits and Panama hats. After passing Cuba the cooler garb was brought forth, for in tropical sunlight dark colors seem to oppress the eye, with their psychic suggestion of heat. Looking at the ship's thermometers, we felt that no extraneous hints of warmth were needed.

The Custom House guard of little Panamanian officers in full uniform had a pleasant smile of greeting all ready for us. No sooner had we touched shore than off the Americans started, carrying their own suit cases, at a Seattle pace. No porters or lackies could handle those valises

fast enough. We soon recovered from this attack of speed and fell into the leisurely ways of the tropics. Then I began to wonder if I had really been here before. Could this be Colon? Could this be the pestiferous sink hole of old days? It looks now like a popular winter resort in Florida. In a cab we dashed, on a ten-cent fare, up Roosevelt Avenue, lined with cocoanut trees, and swung around the old De Lesseps mansion on the Point. Here I had to endeavor to make good as one of the party who had "been here before."

Crossing one of the well-paved streets the traveler passes from Colon, Panama, into Christobal, which is in the Canal Zone. The handsome new railway station, with its imposing dome, indicates the permanence and thoroughness with which the plans for the future are being carried out. I gave a glance of greeting to the statue of Columbus, who is depicted gazing in the direction of that land which has made the nuptials of two great oceans possible.

The operation of the Panama Railroad is one of the marvels of modern transportation. Over nine hundred trains are handled every day on that little stretch of track, a little over fifty miles in length. In a short time we were aboard the train looking upon Monkey Hill, now called Mount Hope Cemetery, where twenty thousand victims of yellow fever are buried.

The Canal Zone contains 448 square miles and includes the little group of islands in the Panama Bay, Puerin, Calabra and Flamenco, with a half interest in Naos. The United States owns outright 322 square miles of territory, but under the treaty with Panama may purchase, by right of eminent domain, any buildings or watercourses, etc., needed for the construction, sanitation, operation or maintenance of the Canal, or any part of the 124 square miles within the Zone, previously owned by private parties. By the French purchase over 2,150 buildings of various kinds were secured; these differ from the American structures, and represent over two million dollars to the government. The conquest of the Isthmus is revealed in its towns and institutions and in the life of the people on the Zone.

The Conquest of the Panama Jungle

AFTER the second United Fruit Company's steamer, "Cartago," arrived, the editorial party took the train direct for Ancon, or Panama, fifty miles away on the Pacific side. Then the volley of editorial questions began—Colonel George W. Goethals, Chairman of the Isthmian Canal Commission, Secretary Bishop and Colonel Hodges, and the other members of the Commission, were kept busy answering queries plied over and over, and all their replies were made with good nature and patience.

There were glimpses of tropical scenery from the train windows. Here and there in the swamps near Colon the Egyptian papyrus was growing, reminding one that this plant once furnished the Egyptian Pharaohs and priests of forgotten dynasties with the only form of paper then known, except the skin of animals. "Ohs" and "Ahs" were heard on every side as the train passed through tropical verdure, giving glimpses here and there of abandoned machinery left by the French in the jungle, though much of this has been sold as scrap iron at a flat rate of \$17.30 per ton. Over the Black Swamp—in parts of which it is said no bottom can be found—we passed, and saw the historic Stephens tree associated with days of '55. It is an immense ceiba, and was christened in honor of the celebrated archaeologist and traveler, on account of his expressed admiration for this beautiful mass of foliage. The tree is over fifteen feet in diameter, including the great buttress roots, and over one hundred feet high

from the base to the branches, which originally spread a mass of foliage one hundred and fifty feet in diameter. John L. Stephens was the first president of the Panama railroad, and a true lover of the rare and beautiful in nature. He insisted on sparing the tree and its splendid growth of lianas; but for him it would have fallen under the axe or machete. Worn out by tropical wanderings, Mr. Stephens died in New York, October 10, 1852.

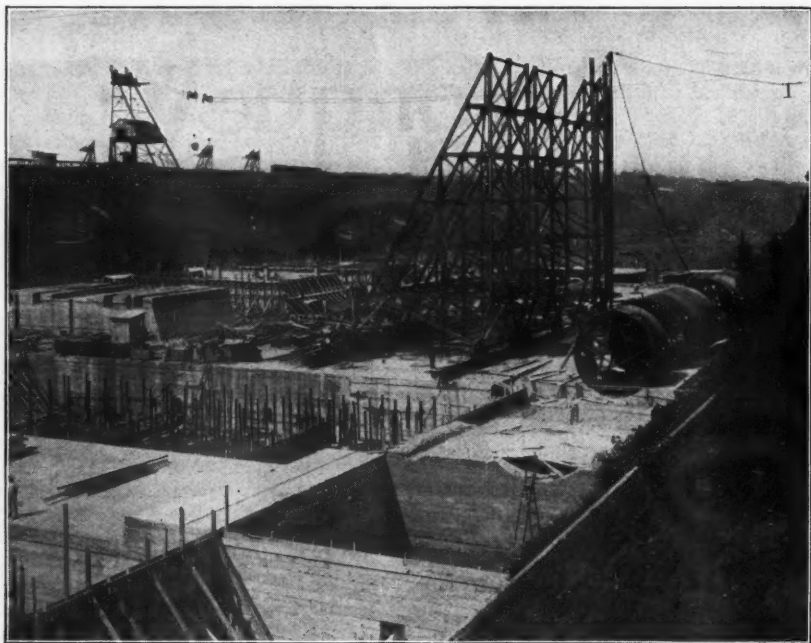
Here were also great flowering trees resembling the "bell-topped" elm, with not a leaf upon them, but gorgeous with great yellow blossoms; on other trees the blossoms were red; others again were purple. The drooping blooms reminded me of the lilacs clustering about the old home. How tales of the tropical jungle passed from lip to lip, and traveled the length of the car! Side by side with the productive cocoanut trees were graceful wild banana trees, which, however, bear no fruit.

* * *

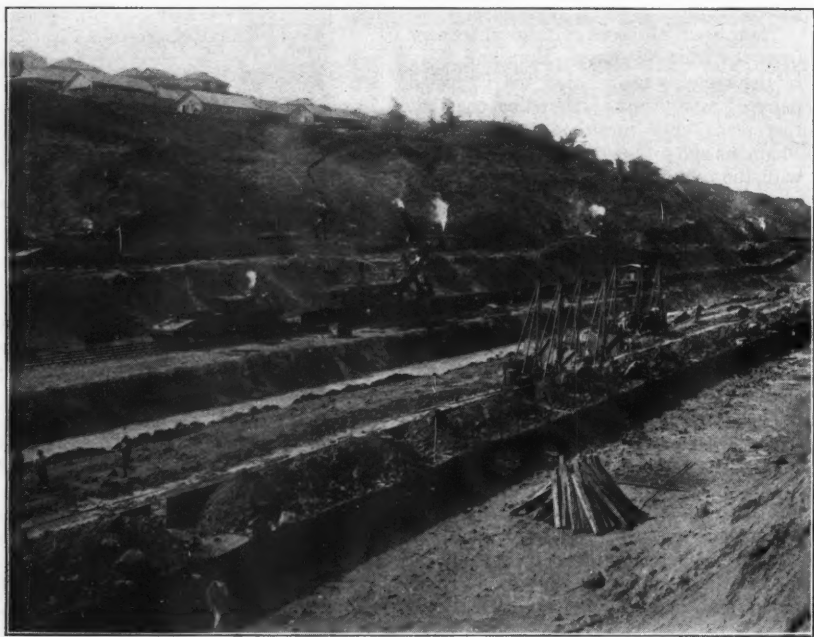
The building of the Canal has already witnessed four notable epochs of progression, each one of deep significance, reflecting in itself a great achievement of the present century.

First: The sanitary organization, which included the discovery of the stenopheles or yellow fever mosquito, that led to the conquest of yellow fever for all time.

Second: The organization, by Theodore P. Shonts, of a cohesive and centralized industrial force, on plans which have proved effectual in the marvelous development of the United States.



CONCRETE FLOOR AND WATERWAYS IN GATUN LOCK



WELL DRILLS EXCAVATING FOR BLASTING



SHOVELS DEVOURING THEIR WAY THROUGH THE CANYON AT BAS OBISPO



LOOKING SOUTH FROM PEDRO MIGUEL LOCK SITE, SHOWING CONSTRUCTION OF LOWER MIDDLE APPROACH WALL, JANUARY, 1910

Third: The steam shovel and rail transportation of dirt, being a direct outgrowth of railroad efficiency. This surmounting of the great trackage difficulties, that has made possible the digging of the vast man-made canyon, is credited to the genius of John L. Stephens.

Fourth: The solution of the lock problems by such experts as Colonel Goethals and Colonel Sibert, who have continued the great work by means of a corps of workers, organized under army methods.

The men who are personally acquainted with conditions on the Isthmus, and really understand the immense difficulties that must be coped with, do not hesitate to bestow unstinted praise on their predecessors for what has already been accomplished; from first to last the Canal has absorbed the attention of men of marked ability; their power to overcome such difficulties as have never been met with in any similar enterprise has made the building of the Canal possible.

Colonel Goethals' tribute to the French and their work was poetic in its eloquence. Baffled by yellow fever, he considered that they deserved much credit for what they had accomplished.

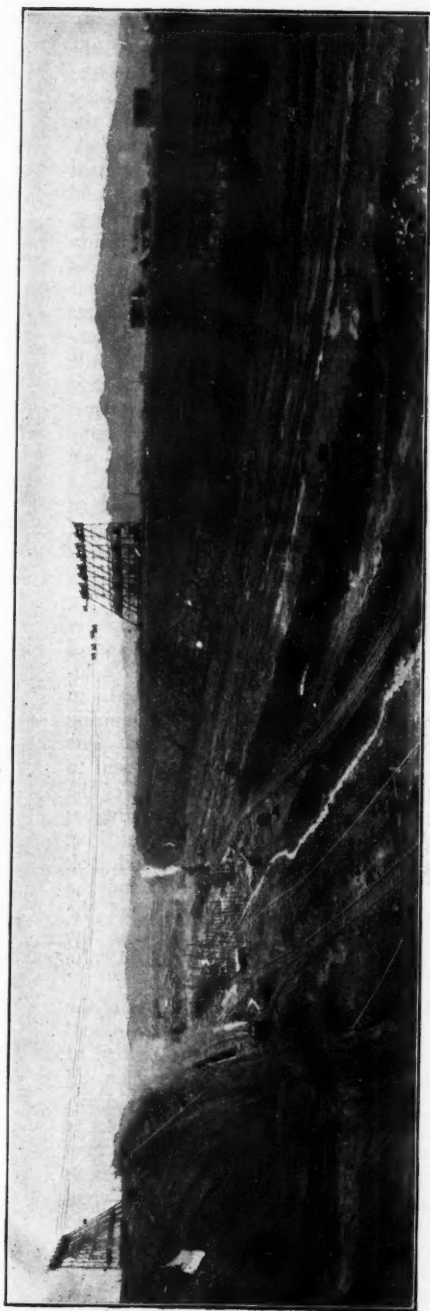
"The real heroes of the Canal work," he continued, "are Drs. Lazear and Reid, who fearlessly faced death in order to prove their theory concerning yellow fever. It is not hard to face death in the open, with one's comrades, and in the excitement of battle; but it requires a very brave man to lie quietly and willingly in a close room and watch the approach of the 'Grim Reaper.' These doctors and some of the Cuban nurses offered their lives to prove that yellow fever germs are carried by mosquitoes. They were willing to sleep in a close room, heated to ninety degrees and over, lying down among infected clothing brought from the fever hospital, and take their chances of recovery. More than one life was sacrificed in these experiments, but the proof was conclusive, and the Panama Canal became a fact—primarily because of the conquest of yellow fever."

When sanitation on the Zone is under discussion the name of Colonel Gorgas comes to mind. An example of patriotic devotion, he has done much to bring about

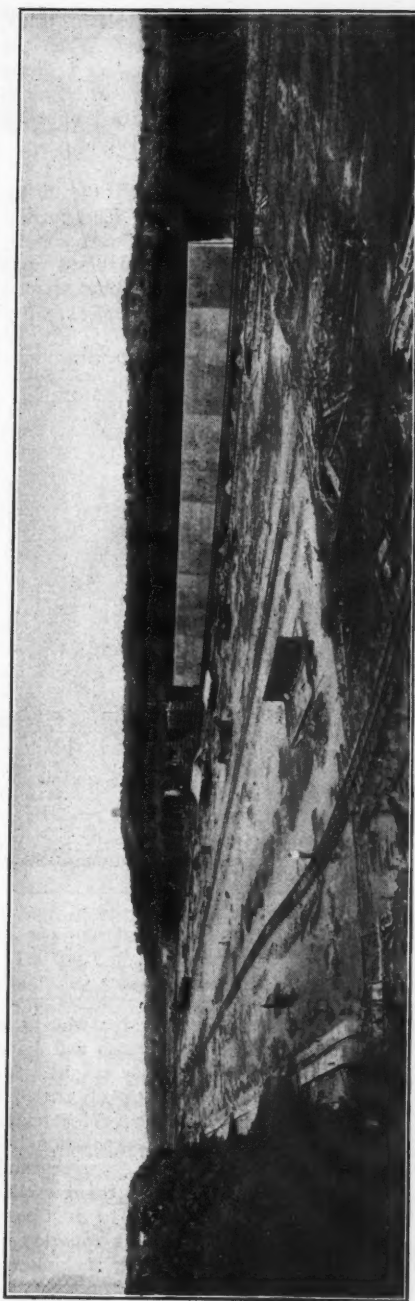
healthful conditions on the Isthmus. The Colonel pushes his work forward under the red-tiled roof of the Administration Building. At the moment we entered he was moving his desk that a new floor might be laid to replace the one which the ants had just devoured, for nothing has yet been found to exterminate these tropical pests.

Here we obtained information regarding the recently discovered "larvaecide," which is almost certain death to the mosquito; it is composed of carboic acid, caustic soda and resin, and is more effective than kerosene, because it makes an emulsion, or mixes with water. It was compounded by the chemist at the laboratory, who worked on it for many years with as much concentration and enthusiasm as though a great fortune depended on the discovery. A few drops of this larvaecide works wonders in the relentless extermination of the fever-breeding insects. Precautions are observed as strictly as ever, and there is continual inspection of cans, tanks and all water receptacles throughout the entire Zone, and at Empire and Colon. Previous to the institution of this rigid inspection water jars everywhere, even in hospitals, were breeding grounds for mosquitoes and consequently multipliers of yellow fever cases. The sanitary reports now indicate that malarial fever is the most prevalent ailment on the Isthmus. Most of the patients are Jamaicans arriving from the West Indies, already badly infected with malaria. One fatal case of yellow fever came on the "Cartagena" from Venezuela; the infected man had entered that port and gone ashore, though he denied having done so when questioned by the health officers; his report was in a measure endorsed by the ship's papers. This case at once resulted in stricter regulations regarding quarantine. The chief fear among natives now is a visitation of the bubonic plague.

The large South American bound packages marked "disinfectants" brought a creepy feeling as we looked at them. It is said that in some South American cities the merchants appear to have no fear of yellow fever, and show no anxiety to exterminate the disease because in their opinion it prevents foreigners, who



THE NIAGARA GORGE AT GATUN BEFORE THE LOCKS WERE BUILT



DEEP CUTTINGS AND MASSIVE CONCRETE FLOOR AND WALLS OF THE PEDRO MIGUEL LOCKS

might prove progressive rivals in trade, from locating in their cities. When the bubonic plague is mentioned, it is quite another thing. Residents in South American countries turn pale with fear at the thought of that dreaded malady.

* * *

The present plan, whereby the aid of military workers is secured, stirs patriotism and evokes enthusiasm, without any firing of guns or shedding of blood upon a hostile battlefield. The fact that military discipline has been applied to the



COLONEL GEORGE W. GOETHALS
"All aboard! We cannot stop dirt trains,
even for United States editors."

digging is the chief reason for the rapid advancement of the work. Men who have passed the crucial Canal test and have made good are being eagerly sought. An army officer is, as a rule, not easily tempted by a handsome civil salary, which might be offered him by a large corporation because of the comprehensive experience and discipline which has made a canal worker one who understands how to do things under orders without excuses or parley.

The critical eyes of over a hundred editors closely inspected the work on the Isthmus. It presented at once curious,

fascinating, kaleidoscopic views of past, present and future. The charm of the Zone grew upon us every hour; those who had written the most severe criticisms before visiting the work now caught the Canal fever, and were loud in their praises. We had caught the tune of the great anthem, "the Canal is being built," and we each wanted a hand in the building. Those who have visited the Zone return home convinced of the thoroughness of the work and its importance. Each one feels that the honor of the United States is involved in bringing the Canal to completion, and would be willing to contribute his own private funds rather than have any delay in the Panama Canal programme. One poetical "we" asserted that "Panama is the brightest jewel that sparkles on Uncle Sam's watch chain." His dutiful nephews and nieces feel that, inasmuch as the old gentleman has never before craved adornment, he should now have the very best. The magnitude of the undertaking makes it an appropriate achievement for a great nation that hopes to inaugurate the peace of the world. The success of the work on the Isthmus will be the solution of many vexed problems in the Latin Republics, and will aid them in organizing stable and successful governments. One of the object lessons which they seem to be taking advantage of is the sight of the marines on the war vessels at Nicaragua; cooped up on board for a length of time, the men become very restless and look with longing eyes over the rail, and the Southern nations hardly understand the perfect discipline which restrains the American soldiers and sailors, despite their natural desire to be "let loose."

We very soon learned to keep out of the sun at noonday, to use an umbrella, and take advantage of the cabs to be had at such reasonable rates. The battalion did not forget, however, the old habit of drawing forth fountain pens and note books at every spare moment, to record canal information. Writing of what has been seen, the mind again lives in those vivid pictures, which memory portrays even more faithfully than the ubiquitous camera, which cannot secure the spirit and feeling of "the time"—"the place"—and other things.

The Giant of Locks The Canal

AT Gatun Station, completed last year, we met Erwin, the police officer who remembered the magazine pilgrims of three years ago. He took the party in tow and from the hill near the station we looked for the first time, with almost speechless wonder, in the glow of the evening sunlight, at the work of the Gatun locks. Out of an extreme length of forty and a half miles from the Atlantic shore to the Pacific coast line, the first six and one-tenth miles of sea level canal leads to the first of the three great Gatun locks, each 1,000 feet long and 110 feet wide, inside measurement. By the successive use of these docks west-bound vessels will be lifted eighty-five feet to the surface level of Gatun Lake, and east-bound ships will be lowered eighty-five feet to the sea-level canal. The three Gatun locks include six-tenths of a mile in length, which are the most stupendous examples of concrete construction ever attempted by man.

One of the great monoliths was finished, having been built step by step to a height of over one hundred feet. Founded in the solid rock, massively constructed, it appears to be as enduring as the pyramids of Egypt. A twenty foot solid bed of cement, with "tooth picks" of French rail-scrap to "reinforce" the cement and tie it more firmly together, ought to be as nearly adamant as anything sublunary can be. These locks are certainly a triumph of American engineering.

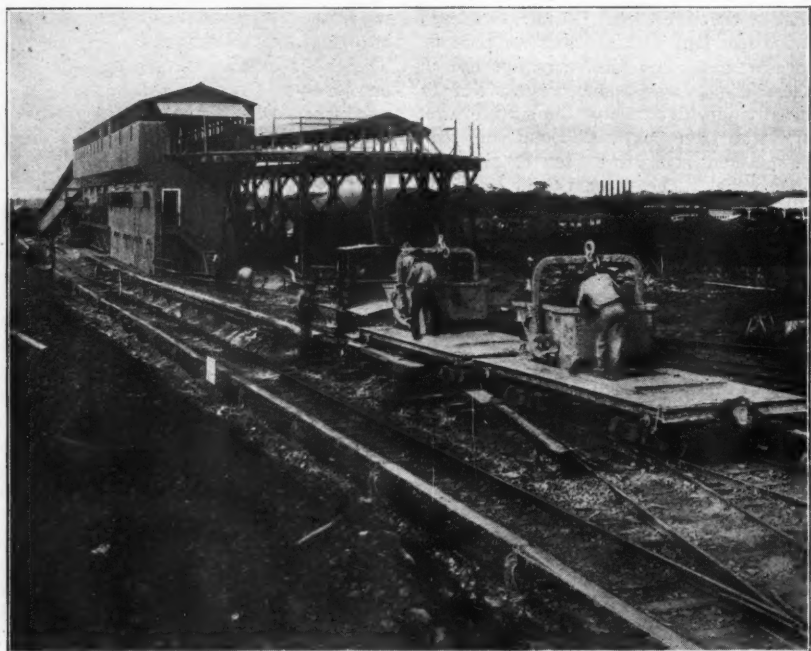
Down into the bed of the immense cut of twin locks we went, crossed the

great masonry floor and surveyed the immense holes, that look like sewer man-holes, through which the water will spout to raise the vessels to a higher altitude, or be let out to lower them to sea level. There are six locks in three pairs, and when one considers that a lift of eighty-five feet is divided among these, one admires the boldness of the engineers' design, even while the mystery of the process capable of lifting a great ship is made clear. Across the locks run the wire cables on which the buckets of cement are conveyed, swinging like great pillows in the air. Thousands of tons of cement have been consumed in the titanic undertaking, and much more will be needed to complete it. On the other side revolve the cement mixers, out of which swiftly running third-rail electric cars are filled and sent to deposit their plastic lading where it will lie and harden into eternal rock.

On the banks of the old French canal stands the great cement warehouse, where nearly five million barrels of Atlas cement, brought from Northampton, Pennsylvania, are handled for the mixers. Close at hand are great piles of crushed rock from Puerto Bello, and of sand brought from Nombre-de-Dios; the first captured by Admiral Vernon in 1741, and the latter famous for an ill-fated raid by Sir Francis Drake in Queen Elizabeth's time (about 1686). A constant succession of electric cars, running automatically, pass along at regular intervals; one part of each car contains cement, another rock and another sand. Loaded from above through a



AFTER THE STORM, THE LOCOMOTIVES PUSH THROUGH THE FLOODS



CEMENT PLANT AND ELECTRIC TRAIN AT GATUN LOCKS

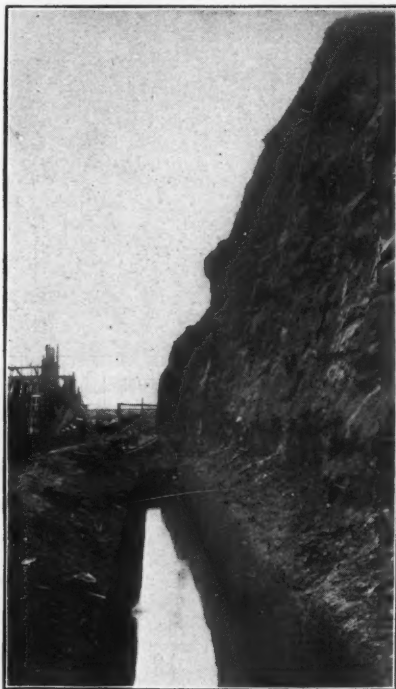


A CONCRETE FLOOR THAT WILL OUTLAST THE CENTURIES



SUSPENSION BRIDGE ACROSS THE CULEBRA CUT AT EMPIRE

chute from the big "stock piles" the ingredients pass to the cars and on to the mixer, apparently as if by magic, for all cars are operated by the third rail, which the Jamaican negroes have at last learned by practical experiment is fatal to human life if carelessly stepped upon—a needless danger, for the cars practically run without human intervention en route. Watching these ingenious time and labor saving



EXCAVATION WALL OF THE GATUN

contrivances, one begins to think that perhaps the stories of the wonderful creations that came from the forge of Vulcan may not be merely myths, but memories of a time when men were wiser than they are now. The blasting began in the lock excavation work about five o'clock, after the workmen had retired. It sounded like a Fourth of July celebration on a large scale, and was a fitting sunset salute. A flag with red and white squares indicates that the blasts are being prepared; electricity is used to explode the charges.

Peering down, as we passed, into the caverns of those great locks, we could see in fancy the leviathans of a later age, larger than the "Mauritania" and "Lusitania," being raised, as though by magic, through these locks to the bosom of the Gatun Lake, and passing along the canal which leads from the Atlantic to the Pacific.

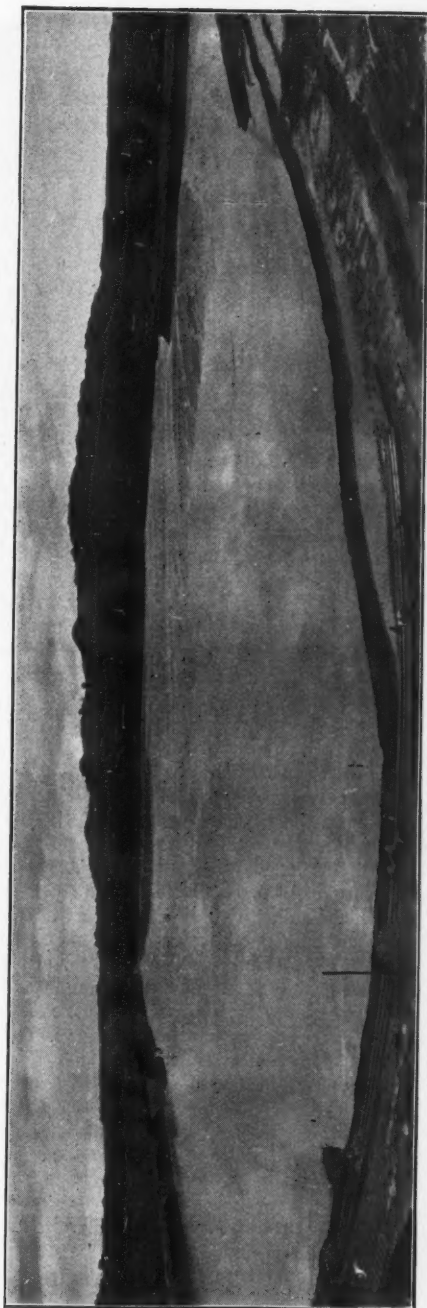
The great dam, looking like a long, low mountain, extends between two hills. Measuring 9,040 feet (one and eight-tenths miles) along the crest, including the spillway, and 1,900 feet wide at its greatest thickness at the base, its crest is 115 feet above sea level, 100 feet in breadth and thirty feet above the normal lake level, where the dam is 375 feet thick. Immense "toes" or layers of rock will protect both the inner and outer slopes of the dam, and the upper slope on the lake side will be farther strengthened by ten feet of rock-work. In the heart of this artificial mountain is a filling of sediment, the drainage of the dredging waters pumped in night and day; it becomes a solid substance for the core of the dam; the whole structure has been made sixteen times stronger than was at first required by the engineers, the purpose being to allay all apprehension by making absolutely sure of the impregnability of the canal work. The spillway has a channel 300 feet wide, over which 140,000 cubic of water will flow every second, and through which the waters of the Chagres will flow.

* * *

The great lake will cover a space 165 square miles in area—it is a "lake" rather than a "lock" canal. Timber was being cleared from the immense anchorage basin in Gatun Lake, just above the dam, and many a vessel in 1915 will anchor above the very site of a beautiful tropical jungle; and keels will float eighty-five feet above the old village of Gatun. It is a busy scene—thousands of men hurry hither and thither, filling in behind the breast-works concrete masses to become reefs of eternal adamant. Locomotive whistles shriek, bells clang, trains rumble along, long lines of workmen come up out of the lake basin—making a picture of industrial activity never to be forgotten.



GATUN DAM AND THE SURROUNDING COUNTRY TO BE SUBMERGED BY THE LAKE



THE GATUN DAM BASIN, WHERE THE WATER IS DRAINED OFF TO LEAVE A
SEDIMENT WHICH HARDENS INTO A ROCKY SUBSTANCE

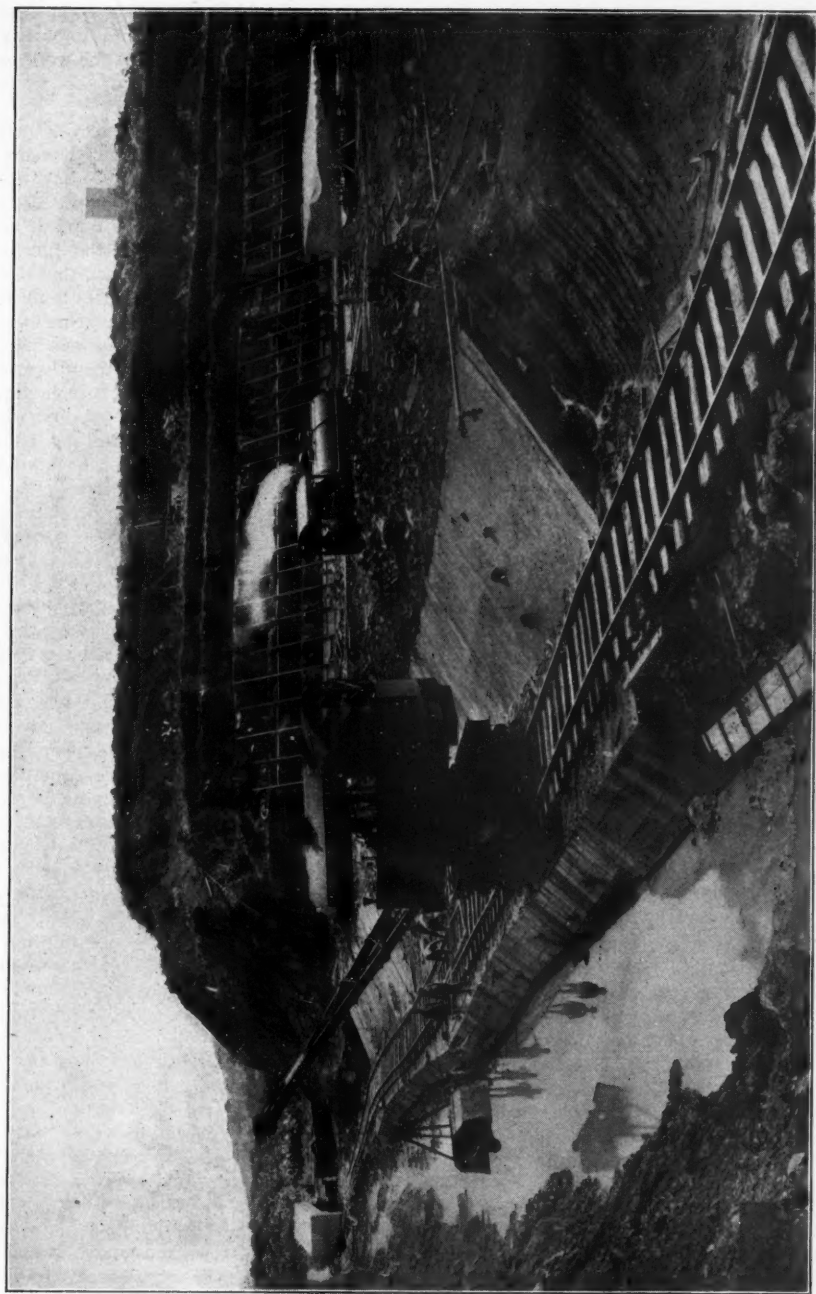
In the early afternoon the train was ready, with Colonel Goethals aboard, to take the party to Culebra, where our first visit was to his official quarters. His office is on a very high hill, and the editors were "puffing" in another way than was their wont as they passed the threshold. After the climb the party listened to a full explanation, in terse, clear language, of the Canal work and plans. In the chairman's office was a model of the locks and the Canal, showing the safety device—the great chains, electric towing engines and false dam. The manner in which the water comes into the locks from the bottom was illustrated. The provision for using only a small portion of the one thousand foot lock was explained; this is most desirable and economical as ninety-five per cent of the steamers likely to use the canal are less than six hundred foot craft. The time of locking is estimated at ten to twelve hours, from one ocean to the other. Travel here will be more rapid than on the Suez sea-level canal, partly owing to the fact that here there is no sandy formation, compelling vessels to go at a rate of about three miles an hour, to avoid washing down the banks of the canal. In the Panama Canal, the average speed will probably be over five miles an hour—including all lockage, and it will be possible to lock through forty-eight vessels a day. A model of even the largest "dreadnought" looked small in the canal model in comparison with the length of the great locks, which will give the largest craft an aerial flight or perpendicular lift of eighty-five feet.

The map on the wall of the office was studied—to gain a comprehensive idea—also a relief map. Pointer in hand, Colonel Goethals took up every detail of the construction of the Canal, and soon had an intensely interested audience. As Professor Bailey of Cornell University remarked, "It was a class-room lecture seldom excelled." The simplicity and directness of the explanation made every minute of that too brief hour full of interest. Looking out of the window of the office, one saw the work in process on the Culebra Cut, while turning to the bas-relief model on the table, and the map on the wall, the whole great scheme lay unfolded before us.

Ships enter the Canal at Limon Bay, on the sea level, going seven miles to Gatun locks; here they are raised eighty-five feet by means of a series of three pairs of locks, each being twenty-eight and one-third feet, which brings them to the level of the Gatun Lake. This great body of fresh water is even larger than Lake George in New York and provides an anchorage basin sufficient to accommodate our entire navy without crowding. Sweeping down the lake, steamers reach Pedro Miguel locks, having traveled the thirty-two miles at full speed. Here the ships are lowered thirty feet, by means of a single lock. Now they cross Miraflores Basin—about a mile in width—and are again lowered by means of two locks of twenty-seven and one-half feet each, this being a total drop of eighty-five feet to the sea level canal of the Pacific which is five miles from the island-protected harbor. Fifteen of the fifty miles across the Isthmus is passed by means of the sea-level canal, the rest of the distance being in the Gatun Lake, Miraflores Basin and in the locks.

The Atlantic entrance of the canal is at sea level, has an average depth of forty-one feet and the average tide is not over twelve inches, or one foot. On the Pacific side the tides range as high as twenty-two feet, and the channel is dredged to forty-five feet. At full tide the Pacific is ten feet above the Atlantic, and at low tide it is ten feet below the Atlantic. The Chagres River has been practically buried in the Gatun Lake. The rainfall last season was the heaviest recorded for many years, and raised the river over thirty-nine feet in a single night, but this would make only a rise of four inches in the lake. Observations show that the annual rainfall of the watershed of twelve hundred square miles is much more than sufficient to keep the lake well supplied with water. The average rainfall is one hundred and forty inches on the Atlantic side, and eighty inches on the Pacific, while the rainy season extends from April to December. This gives an ample supply of water to draw upon during the dry season. The evaporation from Gatun Lake is estimated at fifty inches per annum.

Every question asked by the editorial



EXCAVATING THE GATUN SPILLWAY, WHERE THE CHAGRES WILL FLOW

party was most courteously answered by Colonel Goethals, who was ready to straighten out every kink with just the right information. With his wide practical experience of the work, he was an ideal instructor and demonstrator, and it was plain to see his special genius was in executive work and lock construction. In the cross-examination by the editors some interesting facts concerning the career of Colonel Goethals were incidentally brought to light. He was born in Brooklyn and was appointed to West Point by Congressman "Sunset" Cox, who previously had been much annoyed by candidates who failed to pass the examinations. The lad with blue eyes and Dutch blood assured him, "I will enter if appointed." He was appointed and entered, and will always do honor to his alma mater, the great military school on the Hudson, by his achievements, though they are in the paths of peace rather than war.

His first assignment was on the Tennessee River, where a delayed contract was worrying the citizens of Chattanooga. The local Chamber of Commerce had its troubles in its efforts to secure a water-competitive freight rate. They arranged to have a boat through the river on a certain date, because if not done then it would be impossible to secure the benefit of water rates from the railroads for Chattanooga. Young Goethals was detailed to handle the work, under the orders of General Casey. He brought the boat up the river on the fourteenth, a full day before the time limit required. He served his apprenticeship to General Casey, who became famous by completing a contract for the Library of Congress and for returning five hundred thousand dollars of the appropriation to the treasury. He also finished the Washington Monument in the time allotted for the work, and erected the Army and Navy Building at the capital within the estimates and in time. These were undertakings which trained the man now directing the destinies of the Panama Canal, and it was an eloquent tribute that the Colonel paid to his former chief, General Casey, under whom he had learned to make reliable estimates and carry out work according to military orders, and within the specified time. When Colonel

Goethals says the Canal will be completed by January, 1915, his statement is implicitly believed by all who have seen the work or who know the man.

* * *

Every Sunday morning Colonel Goethals hears all grievances from canal workers, and not a man on the Canal force but feels free to go to him with a complaint. It is not popular down on the Isthmus to "kick" these days, just for the fun of kicking. The Colonel claims that he learns more from these grievances than he does from routine inspections. One locomotive engineer insisted that he was hauling eighteen carloads while others hauled fifteen. "This is not right," he complained.

"Of course it is not right," echoed the Colonel. "Hereafter they will all haul eighteen cars if you can do it without difficulty."

Referring to the time of the French, the Colonel insisted that the development of the work as it progressed would have soon suggested the feasibility of a lock Canal to these earlier workers. They would have had to face bitter disappointment in finding that much of what they had already done was useless. With twenty-three rivers pouring into the prism, and the land slides coming into it from time to time, it is seen even by unskilled observers that a sea level canal was out of the question, if the purpose of getting ships through at all times was to be achieved. The sea level advocates in our party were converted very quickly when they saw the canal and the country through which it must run. Had the sea-level plans been adopted, it would simply mean the removal of mountains in order to reach the depth required—with precisely the same attendant natural dangers.

As the work progresses, it seems providential that the decision was made in the beginning for a lock canal, for every month proves more emphatically that it is a decision approved by Nature herself. Over and over again the same questions regarding the work were shot at the Colonel—and he replied with saintlike patience, though some of them must have sounded foolish to a man of experience. He was especially gallant to the ladies, and was



THE FORWARD DECKS OF INCOMING SHIPS ARE LOADED WITH JAMAICANS,
COMING TO WORK FOR SOME OF UNCLE SAM'S SILVER

careful to see that they had every opportunity to understand the work.

One of the main considerations kept constantly in mind by the Colonel, is his cost system. Pay checks are signed and countersigned by the seven different men who check disbursements for the work; The undertaking on the Isthmus may be looked upon with the closest scrutiny and the conviction arrived at that not one cent is being wasted. Nor are there any drones in this hive, for the process of elimination has been carried to perfection, and those who do not "make good" are reminded, in the words of the inimitable Mr. Rourke, assistant engineer of Culebra, that "the boat goes back every five days."

* * *

The clanging of the locomotive bells sounded like early morning chimes as we sat out at dawn again to view the work on the gigantic locks at Gatun. What has been accomplished in four months tells the story of what can be done in the coming year; the locks at Gatun will be practically completed within a year. The great dam, together with the spillway and locks, looks like the gorge of Niagara. The Chagres River is now flowing through the spillway, as placidly as a mountain brook. Here the power is to be generated that will run the electric tramway to tow the vessels through the locks and operate the entire railway system. Near the spillway the great concrete mixers continue to work night and day. Many barrels of Atlas cement are here unloaded into the mixers, and hundreds of men and machines were pressing to completion masses of concrete.

The last day we spent in a trip to the site of the Miraflores locks—Miraflores means the Lake of Wonderful Flowers—here the locks lower the ships into that beautiful basin by a drop of thirty feet. This little lake is fifty-five feet above the Pacific sea level, and is a piece of engineering that farther proves the logical status of the Gatun Locks. The whole nation knows now that a lock canal is not the impossibility that it was represented to be a few years ago. The objectors who insisted that water could not be retained above its natural level now understand that these artificial lakes are no more remarkable than those set by

the hand of Mother Nature on mountain tops, or the great water reservoirs on the Isthmus and elsewhere. For over three hundred years there have been no earthquakes that would disturb concrete structures on the Isthmus, and there seems, therefore, to be no cause for apprehension regarding either the lakes, locks or canal.

The sand for the gigantic concrete work on the Gatun Locks is taken from Nombre-de-Dios, an historical spot in Panamanian territory. Here the big suction dredge is kept busy pumping into the barges, which are towed down the Atlantic and up the old French Canal to the stock piles, near the mixers. Nombre-de-Dios means in Spanish, the name of God, and, like nearly all the old towns and noted places throughout the Isthmus, preserves traces of Spanish occupation. An academician of the party, who was not camera-laden, took pencil and paper and figured long and carefully to discover how much more masonry would be used in the construction of the Panama Canal than had been required for the Egyptian pyramids.

After all the work on the locks and dam has been put into position 6,000,000 rivets will have to be driven, these being exclusive of the millions of rivets already put in place in the prepared parts that have been taken to the Zone. The clatter of a million skyscrapers being built all over the land would be as nothing as compared with that mighty chord of ringing staccato that will ascend from this little strip of land, the Canal Zone, when 6,000,000 rivets go home to the position they will occupy for hundreds of years.

The work at Gatun is in charge of Colonel Sibert; clad in army khaki, wearing square-bowed spectacles and bronzed to the roots of his hair, it is evident that his whole energy has been concentrated on the construction of the great triple twain of locks.

The progress made here and at the Cut seems to create more local interest than current news from the States. Four or five days elapse between the arrival of vessels coming from the States, and "news" is a little stale before it reaches the Isthmus. But every day's work on the gigantic Gatun Locks is read as eagerly as November election bulletins.

The Man-Made Canyon of Culebra

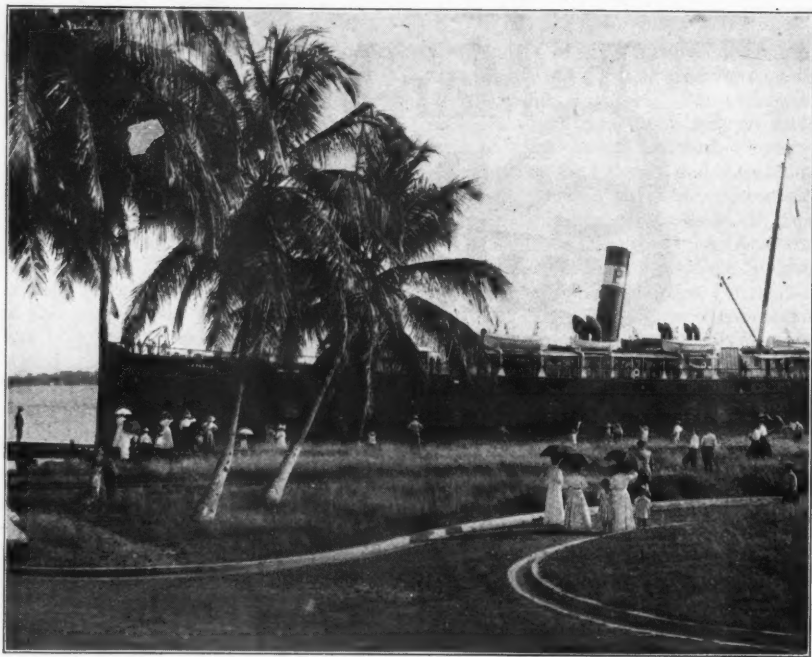
THE wide channel across the Gatun Lake narrows at San Pablo to eight hundred feet, being about five hundred feet wide until it reaches Bas Obispo. Thence to Pedro Miguel it narrows to about three hundred feet, keeping this width for eight miles. The depth is from seventy-five to a hundred feet. At Bohio the wide channel has been cleared of underbrush for fifteen miles after leaving Gatun. Most of the excavation done by the French company was between Tabernilla and Bas Obispo, but a large part of their work could not be utilized in the present plan. Today the Chagres River in its winding course crosses the line of the Canal fifteen times, and at Bas Obispo turns abruptly at a right angle to cross again, but will be buried deep under the waters of the lake, and it cannot create even an undertow or current. When the water is turned on in the lake, instead of the tortuous windings of a tropical river, there will be a great body of fresh water, extending over an area of 165 square miles. The Matachin dyke has been built to protect the work going on in the Canal, the river now being above the work of the shovels. When the lake is raised to its normal level, the river beds and banks will be far below the surface of the canal-lake level, a level high enough to menace any part of the work.

The great nine-mile Culebra Cut will have a minimum width of 300 feet and follows the old surveys. This is the most spectacular feature of the enterprise; for riding through the Culebra Cut—a great man-made canyon—one gains a vivid view of the immensity of the task. At the "angle" or curve in the cut one is

reminded of a glimpse of the picturesque Hudson and of what has already been accomplished. Here is a great canyon, 333 feet wide, between Gold Hill and Contractor's Hill (650 feet high), in process of excavation; into it landslides of dirt from the old French dumps have descended during the rainy seasons. These hinder the progress but cannot be prevented by engineering. When these slides occur it is simply so much more dirt to be carried off. They come so gradually that the palm trees growing on the moving soil remain upright and flourishing, despite the sinking of the land. The prize slide occurred at Cucaracha, where the shovels were making a star record. Here the great industrial battle raged with military precision—the shovels vigorously contended with the steady attack of vast masses of mother earth, while numerous drillers, the advancing sappers of the battle line, made holes for charges of dynamite. Each hole is loaded with a charge of seventy to a hundred pounds of the explosive, which is placed at a depth of sixteen feet. Pipes, like a vast water system, distribute compressed air through the cut to provide power for the drills. The holes are drilled in parallel lines and are connected, being discharged by means of electricity. In these blasts over a million pounds of dynamite are used each month.

* * *

As on all battlefields, tragedies have occurred in connection with the work of this great construction. The casualty at Bas Obispo cost the lives of twenty-four laborers, and was caused by a premature



A GREAT SHIP MOORED UNDER THE COLON PALMS



SPREADING DEBRIS FROM THE EXCAVATIONS ON THE BREAKWATER



A BLAST IN THE DYKE AT MATACHIN



LOADING CARS IN THE PRISM, OR BOTTOM OF CULEBRA CUT

explosion of twenty-two tons of dynamite, loaded in fifty large holes. It is said that the water in the holes being slightly acid the nitro-glycerine in the charges was liberated by the shock of some distant vibration. One man, working on a steam shovel, had the presence of mind to jump into the bucket; he was carried some distance with no worse injury than a few bruises, and returned home to



CHAMBER CRANE AT PEDRO MIGUEL. Completed section of lock floor shows the holes through which the water will come to flood the lock as ships are raised.

tell the wondrous tale of his aerial flight in a shovel. Now the holes are never loaded on the same day they are shot, no chances being taken. If the rock is not so broken that it can be easily munched by the shovels, the larger masses are broken into small pieces by "dobie" blasts. At present the battery of steam shovels on the Atlantic side of the cut, at Matachin, are two feet below the prism, or final depth of the Canal.

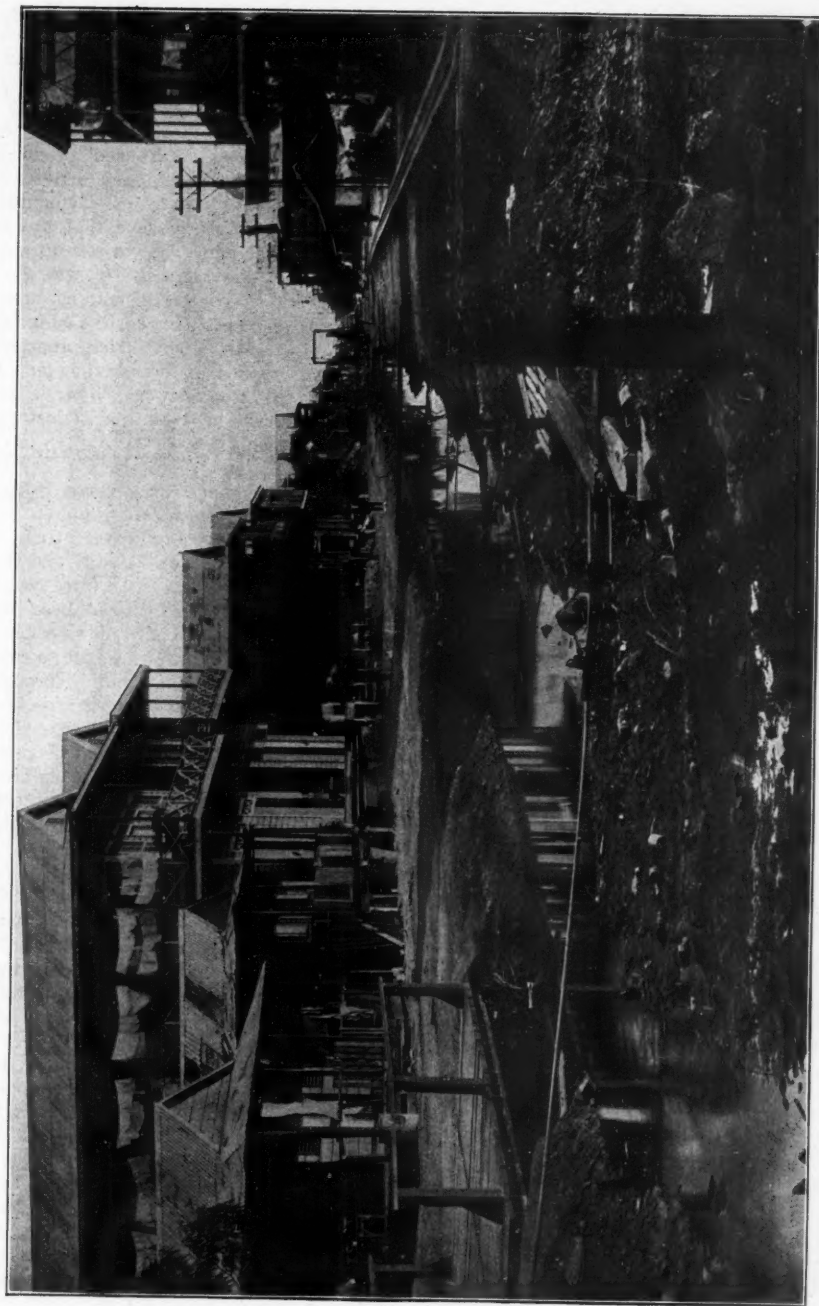
Very little water comes down from the sides of the cut, and no pumping is needed during the dry season; but gigantic drainage ditches slope in each direction, to prevent water in the rainy season from sweeping away the work.

The steam shovels stand on terraced levels and in fifty minutes load a train of eighteen flat cars, which are unloaded in fifteen minutes more amid a shower of dust. The line of cars are followed by "spreaders." All through the cut puffs of steam here and there indicate where the shovels are burrowing their way and pushing the work forward. Watching shovel 221, I stood on engine number 298 when she was at work. Engineer Harrison, his hand on the lever, was pushing the cars up in due course as the steam shovels filled them, while the conductor, raising and lowering a flag, directed a "shove-up," so that even while loading it is sometimes necessary for an engineer to keep his hand on the throttle. One shovel accomplishes probably as much work in a day as could be done by six hundred men, and there is a great deal of rivalry among the operators to make the best record.

The record of steam shovel 223, for one hot October day, shows how the dirt flies on the Isthmus; 313 cars were loaded in 470 minutes. In the language of Larry O'Grady, this was "going some"—almost an average of a car a minute, with eleven seconds grace, or a rate of a cubic yard of earth every seven seconds. A remark was made by a sad-eyed man of unknown nationality. "It looks as though the dirt had wings, doesn't it?" Over 50,933 cubic yards of rock have been taken out in twenty-five working days by one shovel, and a completed tunnel through the cut is excavated within every month. During the day spent with the dirt trains I took a meal at Culebra, and a better lunch I could not desire at the moderate charge of fifty cents.

* * *

Active excavations on the Culebra Cut did not begin until 1907, when fifteen million yards were removed, which record was more than doubled in 1908 by the removal of thirty-seven million, and followed by thirty-five million in 1909, making a total



TENTH STREET IN COLON: OLD STYLE, BEFORE RECONSTRUCTION

for the two years of seventy-two million yards, or an average of nearly three million cubic yards per month the past two years. National readers may remember that three years ago, when I visited the Isthmus, the pace was set at one million per month—now a record of four million cubic yards has been made in a single month. The amount of the French excavation that can be utilized in the present canal is estimated at thirty million cubic yards, although in all they excavated more than seventy-eight million yards. The total amount of excavation required, allowing for all changes in the plans and counting on the earth that must be moved owing to slides, is over one hundred and seventy-four million cubic yards; of this over ninety million cubic yards have already been taken out, which indicates that even if continued at the rate of the past two years the excavation will be easily finished in three years. The prediction that the Canal will be completed in 1915 is very conservative, and those best acquainted with the progress of the work do not hesitate to mention 1914 as the date of completion.

* * *

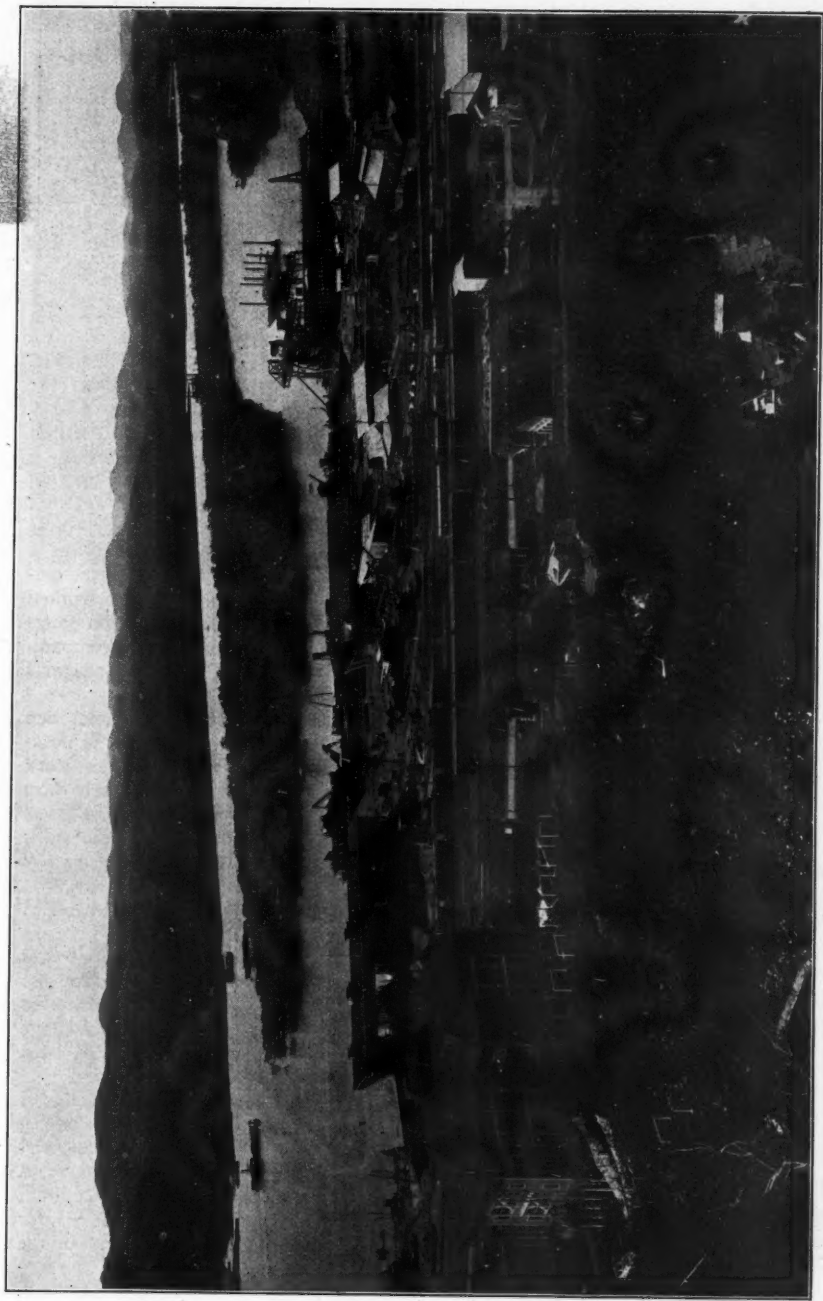
Part of the indurated blue clay, trap rock and blue granite taken from the Cut, goes into the construction of the dam, and part is used for filling and like purposes and the breakwater, according to its nature.

A trip through the Cut is especially interesting if made under the guidance of L. H. Rourke, the efficient assistant engineer, the last of the T. T.'s (Tropic Tramps). He is one of those inimitable persons who have had so much to do with the Canal that they seem to be a portion of it. A graduate of the Institute of Technology '95, he bears the manly stamp of his native place near Plymouth Rock, Mass. He is a born leader of men and has a happy faculty for getting the right men and keeping them right on the job. Mr. Rourke is tall and like most of the workers without an ounce of superfluous flesh. He has a way of talking that commands attention, and the loyalty of his men is remarkable. When Mr. Rourke finds that work has not been done right, there is no shuffling in explanations given him and no mincing of words when he expresses his opinion.

In the bed of the big cut we gathered fossilized oyster shells and other souvenirs which indicate that the ocean at one time swept over this part of the continent—how many aeons ago no man may say. Requests for "specimens" flowed in so fast that we received a "Rourke" promise. Next day, at the hotel, there arrived a capacious box, "Explosives. Dynamite. Look Out!" Passersby gave that box a wide berth, determined not to stir up any dangerous explosives, until it was discovered that it contained nothing more dangerous than specimens for the editorial party, which Mr. Rourke had promised should be supplied to them if they would not get off and stop dirt trains by insisting upon gathering shells on the prehistoric Culebra "beach."

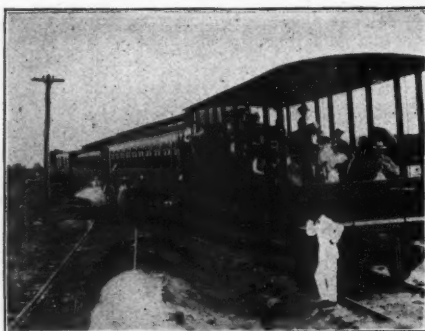
Looking up and down the Cut, when crossing the temporary suspension bridge across the great chasm at Empire, the favorite Sunday stroll for young people, I could not believe that my eyes beheld the same place that I had seen three years ago. Mountains of earth had been removed and the Canal now shows a clear course from Bas Obispo to the ocean, being completed to Matachin. Through the heart of the cut there is a section where the shovels must dig down eighty feet more, but it does not seem a great task compared with what has already been done. Judging from the past records, four years at the outside should see all the excavation finished.

Three concrete barges, to carry the hydraulic excavating pumps on the Pacific Division, are being constructed at a point nearly opposite Corozal. They will be sixty-four feet long, of twenty-four feet beam and five feet eight inches draft. The walls of the hulls will be built of one thickness of half inch mesh number twelve wire cloth, stretched longitudinally, on half inch iron rods, twelve inches apart, and transverse half-inch iron rods eight inches apart. On the frames formed the concrete will be applied as plaster is put on laths. It will seem marvelous that great masses of concrete forming the hulls of vessels or dredges are floating on the Canal, through the great man-made canyon, where material of the very rocks rent asunder rides over the waters.



THE EIGHT-MILE ENTRANCE TO THE CANAL, ON THE PACIFIC SIDE

Coming home from the lecture given at Culebra the cameras were kept busy, now photographing a native boy, now a tree lizard, or a part of a Young Men's Christian Association building. All manner of views were taken. The "rubber neck car," without springs, furnished ample opportunity to see everything and the vistas of scenery we passed were superb. En route we noticed that everything had to get out of the way of dirt trains, the despotic monopolists of railroad transportation on the Isthmus. To see the long line of locomotives daily returning after their day's work seemed like watching an army of sappers and miners on a great battlefield. The engines and shovels were human in their individuality. The rich foliage everywhere was always interesting; some of the shrubs have been imported from India by the coolies, whose turbaned heads added to the picturesqueness of the various views photographed. There is on the



WHERE THE "RUBBER-NECK" CAR POSED

Zone a curious mingling of races, remarkable in so small an area. One of the marked demonstrations of this is the singing of the Jamaican negroes who seem to regard their work as play. Their chanting suggests the voodoo incantations of their ancestors and they move much more cheerfully and gracefully to the rhythm of their weird songs than the old-time laborer did, who worked on railroad construction gangs without musical accompaniment other than Flannagan's explosive cuss words.

A number of the signal men are Jamaicans, and it is notable that they do their work well, although in the early days it is said that one of them was found lying across the track sound asleep. On being hastily awakened he was asked:

"Suppose a train had rushed past?"

"No train passes here unless I know it, boss," replied the drowsy guard, rubbing his eyes and looking up and down the track on which he had been lying.

The movement of trains is regulated by a system of flag signals, that suggests the "wig-wag" signalling of the navy. A yellow flag is used for caution; white for clear and red for danger on the track. In the signal towers are men who control the operation of all trains,

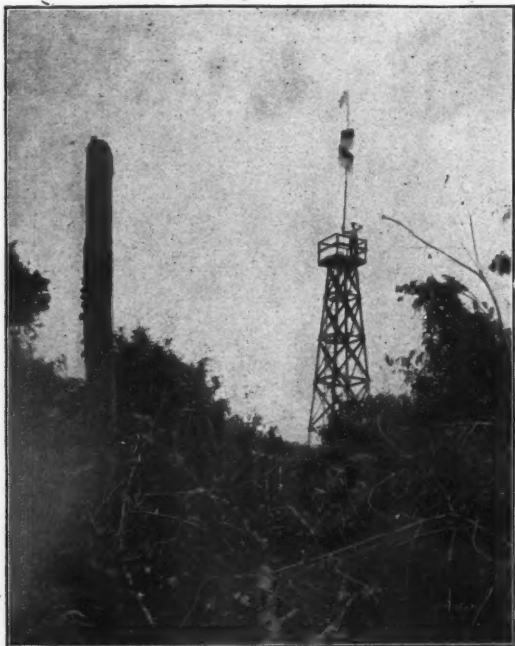


Photo by F. M. Crane

THE BALBOA TOWER FROM WHICH THE ATLANTIC AND PACIFIC OCEANS MAY BE SEEN



A VIEW FROM THE HEIGHTS, CULEBRA CUT. NOTE THE TINY FIGURES
OF MEN AT WORK

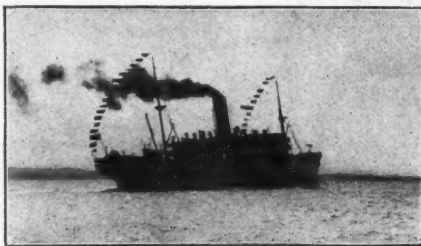


A VIEW OF CULEBRA, SHOWING A SLIDE WHERE THE OLD FRENCH DUMP-EARTH
IS BEING EXCAVATED

which sometimes follow each other in very rapid succession. Occasionally two steam shovels are used to load one car; over a hundred shovels are at work, but the number will soon be reduced, as it is becoming more difficult to handle trains in the deepened Culebra Cut and pulling up grade out of the great "cellar."

* * *

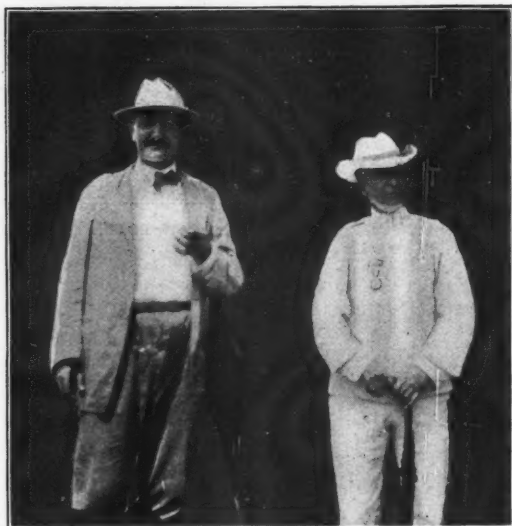
Every minute of our time was scheduled for some diversion, and tourists would come downstairs in the morning rubbing their eyes, at five, and wondering if this was a real "vacation." At the



OUR SHIP SAILED WITH COLORS FLYING

and toes of Jamaicans, as fast as they came in for repairs. They waited patiently and seemed to rather enjoy being patched up one by one. In the room was a sign directing visitors to take off their hats, as wearing them causes bald heads—which is indeed a terrible affliction in the opinion of the West Indian natives. There was also a request not to talk with the dispenser, with the addition, "He mixes poisons." Quinine and rum are made into an attractive looking beverage for the Jamaicans, but the medicine is not made toothsome, for any mixture with rum in it proves popular, however nauseous its taste.

The monthly reports of the sanitary department, under Colonel Gorgas, are documents that make interesting reading for the health departments of many states and cities at home. And the man-made canyon of Culebra was made because of man's understanding of the physical man.



COLONELS SIBERT AND HODGE

Members of the Canal Commission who are on the field

hotel there was a continual comparison of things done and seen during the previous day, and much information was distributed in the evening chats in the cool of the piazza. Everyone who knew anything of the former conditions of the Isthmus remarked how much more healthful it now is. Three years ago, when I was there, quinine was on every table, but today, both in Ancon and Panama, there is no fear either of the water or the climate, and both places are rapidly becoming ideal tropical resorts.

At the dispensary, near the hotel, I saw Dr. Ornstein mending the fingers



ON A HIGHWAY IN PANAMA

The Isthmus In the Days of Balboa

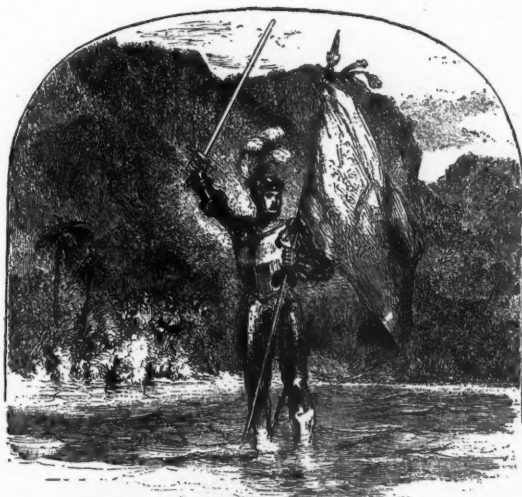
By Clarence J. Dorgan

LONG and varied is the list of those fearless adventurers who have sacrificed human life and accumulated treasure in the country which is now the Canal Zone. Always replete with human interest, the history of the Isthmus is now of more importance than ever before, whether to the young folk studying American school geographies or to "grown-ups" reading descriptive matter concerning that historic neck of land.

A romantic figure, standing prominent in the pages of the story of the Isthmus, is Balboa, clad in Spanish armor and plumed helmet. He explored and partially conquered Darien, and has always had the distinction of having discovered the American shore of the Pacific, acquiring rich booty of gold and pearls for his associates and the Spanish king—only, alas, to encounter in-

gratitude and bow his fearless head to the executioner's axe. Pizarro, later the conqueror of Peru; Devila, De Lussan, the indomitable swordsman and adventurer; John Oxenham, the Devonshire captain who, first of all Englishmen to cross the Isthmus, died in the fires of the Lima inquisition; Sir Francis Drake, his avenger and the scourge of Spanish commerce, who made many successful attacks but was repulsed with loss at Nombre de Dios; stout, burly John Hawkins, his crony and vice-admiral; Henry Morgan, who captured

Porto Bello and then plundered and burned old Panama; and Admiral Vernon, who in 1741 with but six ships took the Iron Castle and Porto Bello, failing most disastrously in the following year before Cartagena, are a few of the mighty men who here dared all that men may dare in peril of sea and land.



From Harper's Magazine

Balboa, first white man to discover the American shore of the Pacific
Entering the water he proclaimed the sovereignty of Spain

These ancient heroes suffered all the pangs of hunger, thirst and mortal plague, the stress of battle and the merciless enmity of cruel and bigoted men, without so much as a thought of the Canal of the Twentieth Century in their wildest dreams of achievement.

As the books say, Balboa "was born of poor but honest parents." He had noble blood in his veins, and living a somewhat "rapid" life in his youth some of his relatives many times wished him "across the seas." He went to San Domingo, but did not make a success of the prosy plantation life. To escape creditors he was smuggled on board ship in a wine cask to join an expedition to Darien. An insurrection occurred and the young Spanish adventurer found himself in supreme command. From Indians and natives on the Isthmus he learned of an ocean across the jungles. Going in quest of this unknown "sea," the old Spanish records state that on September 25, 1513, Balboa obtained the first view of the great ocean; he is depicted standing on the highest point of land on the Isthmus.

Intensely enthusiastic over his wonderful discovery, he went from place to place, and named the first gulf he looked upon San Miguel; he selected for the ocean the

name of Mal de Sur, "South Sea," which was later changed to the Pacific, owing to the fact that no storms were ever known on the coast of this newly discovered ocean washing the shore of the Isthmus.

Balboa was deposed from his command by intrigues at the Spanish court, and, although he continued to live in the land which charmed him, on the shores of the Pacific, he was betrayed by one of his best friends, and fell into the hands of Devila, his hated rival, the Spanish governor. He was accused of intrigue and beheaded within sight of the ocean which he had discovered and christened. His name will always be indissolubly associated with the Isthmus, and the town named for him, on the Pacific entrance of the Canal, will perpetuate the memory of the intrepid Spanish explorer, who first looked upon the peaceful waters of the Pacific from the American shore. In the shade of the mangled stump of the old Balboa tree, the young folks brought forth their histories to read in the shadow of the waving palms the accounts of Balboa's adventures, which were sent back to Spain where they still remain as the rare archives which have furnished the basis for the most thrilling and romantic pages of medieval history.



From Harper's Magazine

On the heights of the Isthmus. Balboa discovering the Pacific

Crossing the '49 Isthmus in 19

By Captain Elisha Ryder

(A reminiscence of crossing the Isthmus in 1849)

IN the memorable year "49," when adventurers of all nations were making their way to California, I also caught the gold fever, and with the rest decided to try my fortunes in the new Eldorado. Like many Cape Cod boys, I had followed the sea from early youth, and had no desire to take the overland route. The "Red Jacket," "Flying Cloud," "Dreadnought," "Tam O'Shanter," "Sovereign of the Seas," and "Queen of the Seas," were unrivalled for beauty, speed, equipment and management in that era of United States supremacy at sea; but the passage around Cape Horn, even in the splendid full-rigged ship of that day, was too long to tempt a man who could afford the shorter and easier Panama route—especially when we thought that every day counted in reaching the great gold fields of California.

The Panama Railway Company had not begun building the road, and boat, or rather canoe, navigation in the shallow Chagres River, and a mule caravan over the mountains to the Pacific were fairly well organized for passengers with light baggage. A single trunk carried my own modest outfit, and loving hands had packed it closely, adding many little necessities that were of great convenience in my later travels up and down the Sacramento River.

We sailed from New York in a side-wheel steamer, in October, and without special incidents rounded Hatteras, and

entered the Caribbean Sea by the windward passage off the eastern point of Cuba. Landing at the mouth of the River Chagres, we found a small village of thatched roof houses, just inside of a point, guarded by an old unused fort, from whose walls we secured a beautiful view of the tranquil haven bathed in the afternoon sunlight, on the day of our landing.

We engaged passage in a *bongo*, or large dug-out canoe, furnished with a rude awning amidships, and propelled by paddles, and made about ten miles that night, landing at another little village of huts, roofed with thatch. Fortunately, Mr. James P. Flint, my companion, spoke a little Spanish and was able to secure lodgings for us under cover; and using our boots for pillows we slept soundly for a while, in a native hut in far-off Panama, dreaming of the white houses and the old homes on the Cape. Our bedroom was a loft with a rude floor. During the night we were awakened by a general chorus of cries and yells from the family beneath us. The grunting and squealing of disgruntled porkers mingled in the air. The family pigs had made a raid into the house and were being ejected.

We spent two days more upon the Chagres River, the crew for the most part paddling their cumbrous *bongos* over the shallows, although there were deeper channels against whose swift current the native canoe-men had to paddle lustily.

While we reclined amid our baggage under the *toldo* or rude cabin, the boatmen worked vigorously under a tropical sun which at mid-day drove even the loquacious parrots and many a sweet-tongued songbird into the shelter of the deepest foliage, and to utter silence.

There was much to see and admire in the great wild jungle, for the river swept toward the Atlantic in curves, each one opening a new picture of tropical verdure, scenery and interest.

Here a range of low hills was closely skirted by the stream, and there a broad savanna trended from the outskirts of a

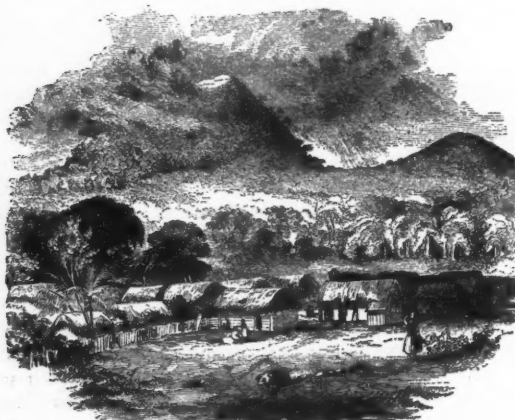
a perfect network of parasitic growth around the tree.

Certain palms grew, instead of seed vessels, huge clusters of nuts, each the size of a lime, whose scarlet showed like rubies against the emerald foliage. Immense clumps of bamboo, climbing masses of passion flower, curious orchids, and vivid trumpet-shaped tropical flowers blended with the walls of forest foliage, which in places was so dense that they resembled ancient towers and walls overgrown with leafage.

A few monkeys, an occasional alligator, a coiled serpent or two, flocks of noisy parrots and exquisite humming birds and butterflies, and in the dusk the wandering lamps of the cocuyos or fireflies made up the wild life as we saw it along the Chagres.

For drink we had the water of the river, clear and sweet enough, but not very cool, and for food the little stock of eatables which we had provided for the voyage, which was exhausted early on the third day. I was sleeping soundly when we arrived about ten o'clock at night at Gorgona, a native town, beyond which river navigation came to an end. Each native cottage, built of bamboo stalks or slender trees, and covered with a lofty, steep-sided

roof of thatch, was already filled. We could get nothing to eat, nor any place to sleep that night, although everybody seemed to be awake and about, dancing, drinking and talking. Wet, hungry, and itching with the bites of myriads of gnats and mosquitoes, it was nearly morning before I found a shelter and storage for my outfit. Here we remained some days until enough mules and horses could be secured for all our party. It was not considered safe at that time for small parties to follow alone and unguarded the ancient trail to Panama. The native huts were small, often little more than twelve or fourteen feet square, but in some of them a dozen California-bound argonauts often bought a night's



The type of village which the 49-ers found in crossing the Isthmus in that eventful year

native hamlet to the inland heights. Again a shallow lagoon covered with broad-leaved and curious aquatic foliage was dotted with golden-hearted, snow-white callas and long slim-petalled water lilies. Close up to the margin grew palms of more than one species, some slender and tall, their fronds lit up with scarlet and yellow seed-tassels; others, thickset and dwarfish, with great branches of big leaves. There were ceiba, cedar and *espabo* trees, with smooth trunks one hundred feet in the clear, whose branches shaded acres, and were hung with trailing vines, from the thickness of a rope-yarn to the bulk of a ship's cable. Here and there an aged tree was seen that had been fairly choked to death by these *lianas*, which had formed

lodging at two dollars for the use of a hammock, or half, or even a third of a rawhide covered bedstead. Eggs, before the rush ended, sold at twenty-five cents apiece, and other eatables in proportion.

It was nearly a week before the caravan was ready to move on from Gorgona. Our trunks and bags were firmly hitched on the baggage mules. We mounted our saddle-horses or mules and started out in the early morning. There were some laughable incidents at starting, for few of us sailors were expert horsemen, and it was difficult to know whether the mule was going forward or astern. Better accustomed to walking a pitching, reeling deck, than to bestriding a rearing, stumbling steed, I was fortunate in my mount, and secured a quiet little horse with a fairly easy gait, which carried me in good style over the rough, narrow road, leading over clay ridges and around hills to Matachin, where level meadow lands shaded by tall palms promised an easier highway. Beyond we found the Rio Obispo in flood, and the fords so deep and swift that the muleteers would not attempt to cross until the waters subsided.

* * *

We "off-saddled" and let our animals feed, for some hours, when the river falling as rapidly as it had risen allowed us to cross in safety. After crossing the Obispo, we followed the old Spanish trail over the mountains, a steep and slippery road in which holes from fifteen inches to two feet deep had been dug and deepened by the feet of the mules and horses which were trained to step in these holes, changing their step from left foot forward to right foot forward, or vice versa, as the position of the holes demanded. Only in this way could these unshod beasts carry their loads upon the narrow slippery path which like a snake wound and curved along the side of the mountain range toward its summit. From hence, we saw the now famous Culebra, which was then a tiny Indian hamlet. The Pacific Ocean was visible on clear days. Over the irregular ridges of the valley of the Rio Grande lay the ancient trail to Panama, only twelve miles away. At one point in the road we came upon an old anchor, rusted and overgrown with jungle, and were told that it

had been brought to this point by some of the crew of a Spanish war-vessel, and left as too heavy and cumbersome to be worth carrying any further.

It was eleven o'clock at night when tired, cramped and hungry we entered the gates of the city of Panama, and the beauties and dangers of the last eight miles were alike unnoted. All that I cared for was to get out of the saddle, wash off the accumulated grime and mud of the journey, eat and drink my fill and go to bed. We found what they called a hotel, full of men smoking, drinking and going in and out to all kinds of festivities, but a bare bench was the only substitute for a bed, not previously pre-empted. Still I was tired enough to enjoy even this, and we got some hours of sleep in spite of the noise and constant coming and going of "the argonauts."

* * *

Next day Mr. Flint proposed to several Nantucket men who were with us that we should hire a house and canvas stretchers and board ourselves until our boat sailed for San Francisco.

My Spanish-speaking friend purchased all the supplies and one of the Nantucket men cooked in good old fisherman style. We had whatever we chose to eat and good cooking. The beef was sold in long strips, but it was fair beef, and we had other meats, poultry, eggs, fish, vegetables and fruit. It was a long time thereafter before any of us lived as well as we did that week, "in our own hired house" in the old city of Panama.

The city was, of course, a great curiosity to American eyes. After the capture of the older city of Panama by Sir Henry Morgan and his buccaneers, the present site (about four miles farther west) was fortified by Spain at a cost of many millions of dollars. Built upon a peninsula about half a mile long and a quarter of a mile wide, it still retained the ramparts and watch-towers that once surrounded the streets and dwellings, and were pierced by three portals, the northern, eastern and western gates. The beautiful hills of Ancon reared their palm-covered crest near at hand, and to seaward, dangerous coral reefs stretching far out into the Pacific made it impossible for a fleet to

bombard the walls without encountering the dangerous harbor. There was the historic old cathedral, the spires encased with shells of the pearl oyster that shone like silver in the sun. There were red-tiled houses with rounded arches and roughly painted balconies, iron-barred windows and doors with enormous hinges; locks and handles of hammered iron and studded with great nails; and narrow streets, twelve or thirteen feet wide. Everything was going to decay at Panama and on the Isthmus when the "gold fever" sent in the advance guard of civilization—tens of thousands of gold seekers who later made Panama the busiest port except San Francisco on the Pacific Coast.



Poling a bongo up the Chagres in '49

The dirt and dust and bad smells, naked children and half-naked, unwashed, diseased men and women crowded the suburbs of the city, and burrowed in the ruins of the casemates and stone barracks of the city wall, and the decayed mansions, once owned by wealthy Spanish families. It was a piece of great luck for Panama, when California drew through her seaport the greater part of the "Forty-niners." Many were there, waiting for months to secure passage for San Francisco.

We were among the first of those who crossed the Isthmus by the Chagres River. We waited for the good ship "Panama," the first mail steamer bound for San Francisco, having come via Cape Horn. We called at Acapulco, the chief city on the west coast of Mexico, but our captain knew so little about the coast that we steamed past the

entrance of the harbor and had to retrace our course for some miles. Here we found much the same conditions as at Panama, except that it had never been so strong and famous a city and was not quite so ruinous. Here we got some supplies, especially sugar and a number of cattle; which latter were hoisted on board by fastening rope-loops around the base of the horns and hoisting them, kicking and sprawling like kittens held by the nape of the neck, onto the deck.

Leaving Acapulco, we crossed the mouth of the Gulf of California, holding well to westward to clear the extremity of Lower California. The officers of the steamer directed a course closer to shore than most of us, accustomed to Nantucket shoals, approved—but this time we were only passengers. They seemed loth to sail out of sight of land, and took very little chance of coming to grief on the shoals and reefs that abound on the coast.

One night an old Missourian, who was sight-seeing from the top-gallant forecandle, suddenly called out that there were "white things" ahead. The officer of the deck at once saw that the "Panama" was heading toward a reef, stopped her headway, and, changing her course, ran out into the deep water before bearing away for San Francisco; and we all turned in, feeling easier as the vessel pushed her way out to sea.

Still we kept close to the coast until we made Monterey, running so near the land that we not only saw the city, but several wrecks upon the beach. This was our first introduction to the state of California. We were later told that the inshore passage insures almost complete calm during a large part of the year, while off shore lively breezes are met with; but I think our captain was new to the coast, much of which was then poorly set down in English charts, the only ones then available.

We finally entered the narrows of the Golden Gate, about ten days out from Panama. It may interest the people of today to know that the canal across the Isthmus was then being discussed, but we little dreamed that vessels would cross over the mountains in twelve hours when it had taken us four long days.

P When The Panama Railroad Was Built

By Laurence Banning

AS visitors of today whirl across the Isthmus, by rail, seated in a parlor car, they find that an historical review of the evolution of the Panama railroad is an interesting phase of the story of the Canal Zone. In the early half of the Nineteenth Century, when New Granada was a struggling republic and unable to attempt so great a task, she was willing to give to any nation, rich and powerful enough to undertake it, the privilege of connecting the two oceans by a ship canal. England had considered the proposition and was appalled at the magnitude of the enterprise. France, more enterprising, actually surveyed the route, and entered into a contract to build it, but failed to secure the capital necessary and finally the concession was lost by default. The settlement of the Northwest Boundary, by which the United States came into possession of an immense tract on the northern Pacific coast, and the war with Mexico, which secured the great territory of California, opened the eyes of Americans to the necessity of a more speedy and economical mode of connecting the two shores of the Republic, as the distance around Cape Horn rendered it almost inaccessible to the class of immigrants who usually settled in the United States. Congress in 1848 authorized contracts for the establishment of two mail steamship lines, one from New York and New Orleans to Chagres, and the other connected with this by the Isthmus of Panama, from Panama to California and Oregon. The

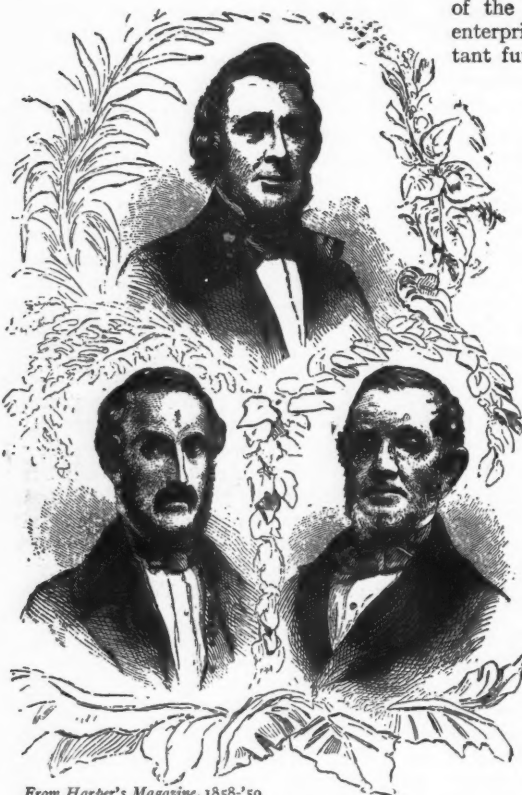
inducements held out did not attract the favorable attention of investors, and the contracts were taken by parties who for a long time offered them for sale without result. Finally, Mr. William Aspinwall, a merchant of New York, secured the Pacific line, and George Law the Atlantic. The Atlantic route promised almost immediate remuneration as it connected Savannah and New Orleans, terminating at the portals of the Pacific Ocean; but the Pacific line was generally looked upon as sure to tie up a large amount of capital for an indefinite period.

Shortly after, Mr. Aspinwall with two other merchants of New York City, Mr. Henry Chauncey and Mr. John L. Stephens, entered into a contract with the Government of New Granada for the construction of a railroad line, crossing the Isthmus of Panama. Mr. Stephens had wide experience as a traveler and archaeologist in Central America and Yucatan, and a large practical knowledge of the route through which the road was to pass, and much personal contact with the inhabitants and resources of the country. Mr. Stephens, with Mr. J. L. Baldwin as engineer, explored the route and decided on its feasibility, discovering a summit gap, not more than three hundred feet above the sea level. A formal contract was then entered into with New Granada for constructing the railroad across Panama. All public lands, lying on the line of the road, were to be used gratuitously by the Company, and 250,000 acres given it, were to

be selected by the grantees from any public lands on the Isthmus. Two ports, one on the Atlantic and one on the Pacific, were to be the termini of the road and made free ports, and the Company was privileged to establish such tolls as it might think proper. This contract was to be continued for forty-nine years subject

Australia, and the East Indies, and in the development of rich but almost inaccessible countries along the Pacific Coast. In the latter part of 1848 the discovery of gold in California brought a tide of immigration across the Isthmus of Panama; swamped the moderate facilities for transportation by the usual river and mule caravan routes, and changed the prospects of the projected road. From being an enterprise which must look into the distant future for its profits, it became one insuring immediate returns from the capital and labor invested, and one in which the people and government of the United States were immediately and deeply interested.

Under a New York charter, a stock company was formed with one million dollars capital, to which Messrs. Stephens, Aspinwall and Chauncey transferred their contract and of which Mr. Stephens became the first president. A party of engineers, under the command of Colonel G. W. Hughes, in 1849 surveyed and located a line of the road from ocean to ocean, through a summit gap even lower than the one previously discovered, and not exceeding fifty miles in length, with its Pacific terminus on Panama Bay and the Atlantic terminus at Navy Bay. Naturally, the country through which this line must be carried presented many and most formidable difficulties to the projectors. For thirteen miles inland from Navy Bay was a deep morass, covered with the densest of tropical jungles, reeking with malaria, and abounding with almost every



From Harper's Magazine, 1858-'59

John L. Stephens William H. Aspinwall Henry Chauncey

to the right of New Granada to take possession of the road on payment of five million dollars at the expiration of twenty years after its completion; on payment of four million dollars at the expiration of thirty years, and on payment of two million dollars at the expiration of forty years. At this time the calculations of the projectors were based upon the advantage of shortening the route to China,

species of wild beasts and insects known to the tropics. Farther on was a part of the country so beautiful to the eye that it was called Paraiso (Paradise); but the larger part of the line crossed a rugged country, climbing steep hillsides over wide chasms, and spanning river and mountain torrents, subject to sudden and most formidable floods, and on to the Pacific Ocean, less than twelve miles away.

Situated a little more than eight degrees north of the equator, a sultry heat prevailed throughout a large portion of the year; while in the wet seasons the country was deluged with rain, and the losses from washouts and land-slides were enormous. The native population, a mongrel race of half-breeds, (Spaniards, Negroes and Indians) were too indolent and unaccustomed to labor to be depended upon to any great extent. There were no local resources adequate to the support of an army of laborers, and men, material and provisions had to be transported thousands of miles. The contract for construction was also taken in 1849 by Messrs. George M. Totten and John C. Trautwine, who had but a short time before completed a work of some magnitude in a neighboring province; the Canal Del Dique, connecting the port of Cartagena with the Magdalena River.

The native town of Gorgona, thirty miles up the Chagres, was first selected as the central point of commencement of the work. It was soon ascertained, however, that the river was too shallow to use for transporting any large amount of men, material, etc., to this point, and in addition to this, the rush of Californian travelers up this river so raised the hire of native boats that the expense of river transportation became prohibitive. It was then determined to establish a point of beginning at the Atlantic terminus of the road, which after a careful survey was located on the Island of Manzanilla, on the eastern shore of Limon or Navy Bay, where the city of Aspinwall, later called Colon, now stands. This point was already swarming with immigrants from all parts of the civilized world, on their way to California.

The conditions under which the contract was made being entirely changed, the contractors were released from their obligations and retained as engineers, the company having taken the management of the construction into their own hands. Declaration of the right-of-way was taken in 1850, and in the latter part of July

large parties of mechanics and laborers from Jamaica, Cartagena and the United States were added to the small force employed. In August, 1850, a station was established eight miles out, opposite the northern point of Gatun, and by April, 1851, the larger portion of the road to this point was completed. The line had been located to Barbacoas sixteen miles farther on, and on the first day of October, 1851, the working cars, drawn by a locomotive, passed over the road as far as Gatun. The following month, two large steamships, the "Georgia" and "Philadelphia," laden with passengers to California via the



From Harper's

The surveyors' transit in the jungle

Chagres River, were driven from the open roadstead by a heavy storm and forced to take refuge in Navy Bay. It was then proposed to transport the passengers by the railroad from Aspinwall as far as possible, whence they could proceed up the river in native boats as usual. Over one thousand immigrants thus disembarked were carried on working cars to Gatun.

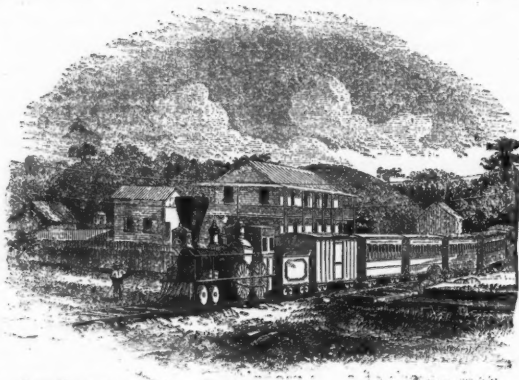
Just at this time, the outlook for the company in New York was very discouraging. The first subscription of one million dollars capital had been expended, the shares were at a very low figure, and the directors were keeping up the work on their own individual credit; but the return of the "Georgia" to New York with the news that she had landed her Cali-

fornia passengers at Navy Bay instead of at Chagres, and that they had been carried over a portion of the Panama railroad greatly enhanced the value of the stock and insured its further capitalization.

On the second of February, 1852, the terminus was formally made a city and called Aspinwall. By March, the road was completed to Bujio Soldado, eight miles beyond Gatun, and passenger trains ran in connection with every steamer, and on July 6 the line had been pushed on to Barbacoas, where the road was cut by the Chagres River, a total distance of twenty-three miles.

At about this time, Mr. John L. Stephens died at his home in New York, and Mr. William C. Young was appointed his successor. The work of bridging the Chagres River at Barbacoas was beset with many difficulties; when the first bridge was nearly completed one span was swept away, and at the end of a year it was still unfinished. President Young was succeeded by President Hoadley and the company redoubled its exertions. The working force was cosmopolitan in every sense of the word, consisting very largely of Irish,

coolies from China and India, and Germans, Spaniards and Austrians, who it was thought would speedily complete the



From Harper's

The first train to cross the Isthmus in 1855; it is said that every tie on this railroad cost a human life

work, but it was soon found that many of them were wholly unfitted for tropical life. About one thousand Chinamen, who were brought to the Isthmus by the company, and furnished with every possible comfort which could conduce to their health and efficiency, showed a singular melancholy and suicidal tendency, and scores of them ended their lives with their own hands. Then pestilence broke out among them, and in two weeks scarcely two hundred remained alive. The Irish and French also suffered severely, and it became necessary to furnish them transportation to their homes.

By January, 1854, however, the ridge of the mountain line was reached, a distance of thirty-seven miles from Aspinwall, and eleven miles from Panama. On the 27th of January, 1855, at midnight, in the dense gloom and driving rain of a tropical storm, and by the light of lanterns and headlights the last rail was laid, and on the following day, January 28, a locomotive passed from ocean to ocean.



From Harper's

First rough wood house built on the Isthmus for the railroad workers

In the Days De Lesseps

By John Morgan Gallup

OF all the famous men whose life stories have entered into the history of the Isthmus of Panama, one great shade absorbs the imagination in an unusual degree, for the life and death of Count Ferdinand de Lesseps embody the greatest tragedy enacted on this stage of numberless tragedies, and illustrate the irony of fate.

The son of Count Matthieu de Lesseps, who himself had succeeded and nearly eclipsed his own father in the diplomatic service of France, Ferdinand de Lesseps, born November 19, 1808, was educated by the state at the Lycée to follow the career of his ancestors in the foreign service.

He was first attached to the Spanish legation at Lisbon, and although he served afterwards at Paris, Algiers, Egypt and other points, his chief and longest service and residence was in Spain, to which kingdom he was sent as ambassador after the expulsion of the Bourbons in 1840. Before leaving Paris he received, at some personal and official risk to himself, the jewels of the Duchess de Montpensier, herself a Spanish Infanta or princess of the royal blood, which had been looted at the Tuileries, after the flight of the royal family.

Highly esteemed by Queen Isabella and the Spanish court, he was soon afterward begged by Mademoiselle Eugenie de Montijo to intercede for the lives of thirteen officers of the Spanish Army, who had been condemned by a Carlist Conspiracy at Valencia, and tried and

sentenced to death. Eugenie de Montijo, later the beautiful Empress of Napoleon III, had herself wept and implored mercy in vain, until she fell fainting at the feet of the implacable queen; the doomed officers were all gallant Spanish cavaliers, the cadets of noble houses, who honestly believed in the divine right of the Carlist pretender. De Lesseps had himself tried once and failed, but determined to try once more, for it was given out that the death warrants were to be signed at once. Seeking Narvaez, the Spanish Prime Minister, he said:

"I come to take leave of you, for you will readily see that as my mission to Spain was accepted by the Sovereign Assembly because I might be able to exercise a salutary influence with your government; if it is learned that Mademoiselle de Montijo, belonging to one of the loftiest families of Spain, has unsuccessfully sought my intervention to secure a pardon, which I feel will strengthen rather than weaken your cause, there is nothing for me to do but to take leave of you and return to France."

Narvaez, realizing his determination, grasped his hand and replied: "You may be off, Ferdinand, with the heads of these men in your pocket."

De Lesseps gratefully pressed the hand of the great Spanish Minister, and returning to Madrid found that Queen Isabella would grant a free pardon to the mutineers.

Finally he retired from the diplomatic service, because having been sent to

Rome to reconcile Papal, Italian and French interests and securing the general confidence of all concerned, including the famous revolutionist, Mazzini, and the Italian land-owners, the French government refused to ratify his negotiations and even charged him with leaning toward the liberal faction.

It was in 1841 that the old traditions and present practicability of uniting the Mediterranean, the Bitter Lakes and the Red Sea by a ship canal across the Isthmus of Suez had impressed his fancy. Thirteen years later, in 1854, he became the guest of Said Pasha, the newly-made viceroy of Egypt. De Lesseps was a

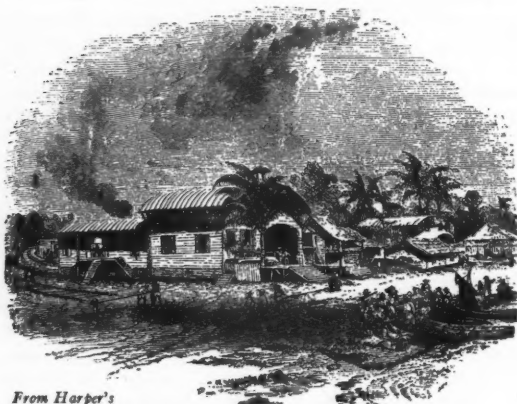
On the other hand Prince Albert, Mr. Gladstone and many other eminent Englishmen generously encouraged the great project. At last in 1856, a working capital of 2,000,000 francs was secured, a formal concession of right of way, with sovereignty for adjacent territory was granted by Said Pasha, and the work began. In 1859 large expenditures had been made, but in 1863 Said Pasha's death was seized upon by the Sublime Porte as a pretext to rescind all grants of contiguous territory. Claim for reimbursement for this escheat of valuable land was afterward adjudicated by Napoleon III, who awarded the Canal

Company four million pounds sterling (about \$20,000,000). A part of the canal was open to small steamers in 1865. Ships of light draught could pass in March, 1867, and on November 20, 1869, the Suez Canal was formally open to the world's commerce. Originally about one hundred miles long, two hundred feet wide at the bottom of the prism, and twenty-nine feet deep, it has been widened and deepened in recent years.

Honors and riches poured in upon de Lesseps, and the stockholders possessed one of the most remunerative properties of the world. A general interest in canal construction was awak-

ened, and de Lesseps was soon called upon to pierce the Corinthian Peninsula, Greece, and to visit Tunis and Algiers to investigate a project for connecting the lower wastes of the Desert of Sahara with the sea; which he declared to be practicable.

Nearly seventy years old, happily married to a young and devoted wife, and surrounded by loving children and all that can make life desirable and contented, yet the "Call of the Wild" seemed ever to ring in his ears, summoning him to an even greater undertaking—the junction of the two great oceans by a canal across the Isthmus of Panama. It was a titanic task compared with what he had accomplished; a great mountain chain was to be cut through, miasmatic swamps to be dredged and drained,



From Harper's

Preparing to build the Panama railroad

doer. He talked over the matter with Said, saying:

"I am not a financier or a man of business. What would you advise me to do?"

The Pasha suggested a preliminary subscription, to secure surveys, and de Lesseps induced each of one hundred acquaintances to advance \$1,000 toward the work. The preliminary survey was made, the plans drawn and the work of organization initiated.

Said Pasha issued a proclamation permitting the digging of the canal, but the Crimean War, the Indian Mutiny and other events of world-wide interest made it impossible to do anything for several years. Lord Palmerston was a bitter and implacable enemy of the plan and did all he could to prevent its exploitation.

mountain torrents and tropical cloud-bursts to be tamed and imprisoned, and a wilderness invaded by myriads of expert and industrious men, armed with the most efficient machinery and appliances known to modern engineering.

The work, begun in 1881, was continued fitfully until it was realized that the original estimates of the cost had been utterly unreliable, and that much greater expenditures must be provided, if the work was to be continued to completion. In 1888 the venerable de Lesseps, then eighty-three years old, made an eloquent appeal to his fellow-citizens.

"I appeal to all Frenchmen, to all of my associates where fortunes are threatened. I have devoted my life to two great works that were pronounced impossibilities—the Suez and Panama canals. The Suez Canal is constructed and has enriched France; if you wish to complete the Panama Canal you must decide at once."

More money was raised, but in ways and at a cost which were ruinous to the project and its supporters; and in January, 1889, the American Senate, in secret session, by an almost unanimous vote "disapproved of the connection of any European government with the construction or control of any ship canal across the Isthmus of Darien," and requested the President to communicate this resolution to the governments of Europe. This resolve crushed de Lesseps' last hope that the French government would intervene and lend its credit and prestige to the completion of the work; and on February 9, 1889, M. de Lesseps announced that the *Compagnie Universelle du Canal Interocéanique de Panama* would go into liquidation.

A commission visited the Isthmus, and on its return reported that in addition to \$250,000,000 already expended, at least \$150,000,000 more would be necessary to complete the Canal, making the whole cost \$400,000,000.

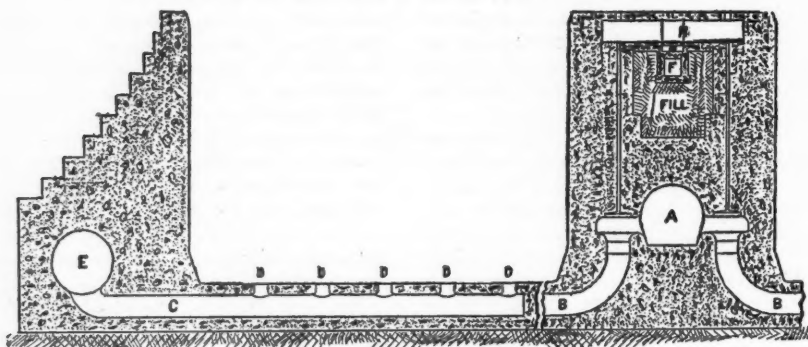
Later it was discovered that out of nearly \$262,000,000 already received and swallowed up, less than two-thirds of that sum had been used in legitimate purchases, management, and construction. In 1892, the public prosecutor indicted

Ferdinand de Lesseps, then eighty-seven years old, his son, Charles de Lesseps, Baron Cotter, M. le Marquis Fontane and M. Eiffel, for "breach of trust and malversation of the funds of the company." Baron Reinach was subsequently added to the list of accused, but went so suddenly before the "Final Tribunal" that his appearance before any earthly court was out of the question. He appears to have been a "grafter" of great capacity and unbounded avarice, and the evil genius of de Lesseps and the enterprise.

The aged defendant broke down under his burden of shame and sorrow, and in his beautiful country seat, La Chesnaye, despondent, broken-hearted, almost imbecile, awaited the end of life. Although the doctors duly declared him unable to appear in court, and he never confronted his accusers or heard the evidence against him, he was found guilty in 1893 and sentenced to three years' imprisonment and a fine of \$600. His son, Charles de Lesseps, received a like sentence, but was allowed before going to prison to visit his aged father. For a few moments the extreme love and anguish of that parting awoke something of the fire and passion of the great heart of Ferdinand de Lesseps. Then the son broke away from his father's embrace, and the veteran diplomatist and great canal-builder sank again into broken dreams of half-conscious melancholy.

A year later on December 7, 1894, Count Ferdinand de Lesseps passed away, having little more than prolonged a monotonous physical existence, during the eighty-ninth year of a great, although ruined life. United States workers still come upon reminders of his last great enterprise, in crumbling buildings and rotting and rusting machinery, disclosed by dredging, or nearly buried in mud and tropical vegetation. It saddens any generous heart to consider that the great American Canal must always be a grave in which lie buried, not only the millions of hapless investors, and the honor and honesty of many Gallic journalists, legislators and financiers, but what should have been the crowning glory of the great career of a remarkable genius, genial and tactful diplomatist, and really great-hearted man, Ferdinand de Lesseps.

PROFILE VIEW OF GATUN LOCKS AND DAM



CROSS SECTION OF LOCK CHAMBER AND WALLS, GATUN LOCKS.

- | | |
|--|-------------------------------|
| A Culvert in center wall. | E Culvert in side wall. |
| B Connections between center and lateral culvert. | F Drainage gallery. |
| C Lateral culvert. | G Gallery for electric wires. |
| D Wells opening from lateral culverts into lock chamber. | H Passageway for operators. |

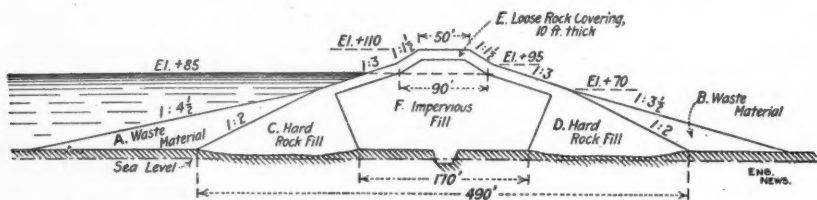


FIG. 10.—PROPOSED REASONABLE AND SAFE CROSS SECTION OF GATUN DAM ON AN ENLARGED SCALE, SHOWING DETAILS.

PROFILE OF THE PANAMA FROM ATLANTIC TO PACIFIC OCEAN.

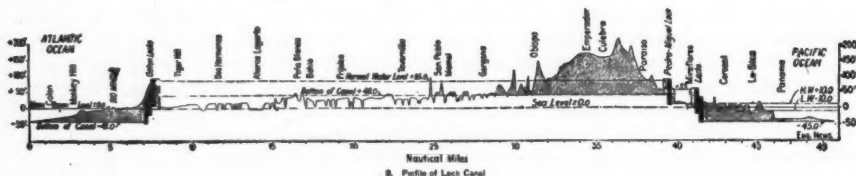


FIG. 1.—LONGITUDINAL PROFILES OF THE SEA-LEVEL CANAL AT PANAMA, PROJECTED IN 1906, AND OF THE LOCK CANAL NOW UNDER CONSTRUCTION. (The shaded area on each profile shows the material to be excavated.)





By E. Vansant

THE Farmer's Co-operative Demonstration Work was inaugurated under authority of Congress in January, 1904, primarily because of the depredations of the Mexican cotton boll weevil in the State of Texas. By the rapid spread of this pestiferous insect east and north it had then become evident that it would in time invade all the cotton-producing states. This occasioned a general alarm among the cotton planters and in the industrial centers of the entire country. For a number of years prior to 1904 the Mexican boll weevil had been steadily encroaching upon the cotton-producing lands of Texas, until it had spread from the Rio Grande to a short distance beyond the eastern boundary of the state, and threatened the entire cotton industry of the South. In sections where cotton was the sole cash crop the invasion of the weevil and the consequent loss of the cotton crop brought disaster to every interest and so completely demoralized financial conditions as to produce in some sections a panic.

The cotton crop had been generally produced upon a credit system by securing advances from merchants and brokers. Upon the advent of the boll weevil, confidence in securing a cotton crop was impaired and in some districts almost totally destroyed. The usual advances were either withheld or limited; labor became discontented and

sought other sections or other states, and tenant farmers unable to obtain advances removed to non-infested districts, a marked decline in property values resulting.

These circumstances created a demand for immediate relief which appealed to the entire country, as the loss of the cotton crop would be a national calamity. In response to this appeal Congress made an emergency appropriation in January, 1904, which has been continued each year, thus affording opportunity for the growth and enlargement of the work.

The man fixed upon to conduct this campaign against the ravages of the boll weevil was Dr. Seaman A. Knapp. Previous to this time he had been operating large farms, growing cotton, corn, rice and other Southern products, and his knowledge of farming was of the most practical nature. Dr. Knapp claimed that cotton could still be grown in the weevil-infested districts, provided intensive methods were used. The problem was how to induce the farmers to adopt these methods.

For many years the United States Department of Agriculture, the Agricultural Colleges, the Experiment Stations, agricultural press, farmers' institutes and the National and State bulletins upon agriculture had thrown light upon almost every topic relating to the farm. These had been of

great assistance to men of college training but the masses, especially in the South, had scarcely been affected. It became necessary, in this boll weevil crisis, to reach the masses, and the demonstration method was adopted. In talking of the commencement of his work, Dr. Knapp said:

"In January, 1904, I went to Texas to take charge of the campaign against the boll weevil. I called a meeting of prominent men to discuss the situation; upon explaining the plan of the department, every face showed astonishment; one, bolder than the rest, explained his views thus: 'Do you mean to tell us that you have come empty-handed to Texas to relieve the distress of our people, and restore confidence, and that you know of no way of destroying the weevil? And further, that you furnish no seed nor fertilizer, and do you intend to tell our people your remedy is to get out and hustle; if this be true we are to receive one of the greatest disappointments.' I explained our plan, that people were rarely benefitted by gifts, that our system of tillage insured a crop, that while they were waiting for the government to give them a few thousand they could increase their income twenty-five to thirty millions, add to their manhood and become independent. They accepted the explanation and heroically followed our instructions. They won. In the fall of 1904 the farmers of the boll weevil districts of Texas found themselves better off than for many years; fewer debts, and more money in the bank.

This demonstration of improved methods of agriculture has been extended, with the spread of the weevil into Oklahoma, Mississippi, Alabama, Louisiana, Arkansas, and a small beginning has been made the past year in Tennessee, and it has been proved that by following the instructions of the Bureau of Plant Industry a good crop of cotton can be raised in the worst weevil-infested districts, despite the ravages of this pest. It is possible that the future may discover some better method of meeting the boll weevil problem, but experience has shown that the method outlined is the only safe one at present.

* * *

In 1904 the work attracted the attention of the General Education Board of New York, and at a conference between that board and Secretary Wilson at Washington, it was agreed that the board might supple-

ment the government appropriation with the understanding that their money should be expended in the extension of the same farming principles to other Southern states beyond the range of weevil-infestation. It was commenced in a limited way in Mississippi and later was extended to Alabama, Virginia, the Carolinas, Georgia and a portion of Florida. As the weevil advanced upon Mississippi and Alabama these states were transferred to the government appropriation. The board has shown deep interest, hearty co-operation and a very broad philanthropy.

The Farmers' Co-operative Demonstration Work aims at several things beyond the mere making of cotton under weevil conditions:

- (1) To reform agriculture and make it an occupation of profit and pleasure.
- (2) To improve rural conditions.
- (3) To broaden and enrich rural life.
- (4) To make the farm attractive and country residence desirable.

And as a first step toward these, Dr. Knapp's slogan is "a greater net yield per acre," not an increased production in the country from a national standpoint, but having in mind and at heart the betterment of conditions from the viewpoint of the small farmers.

When the rudiments of good farming are mastered the farmer secures a greater income for his labor. An important part of this greater net earning capacity is good farm economy and greater thrift, based upon the home production of all the food and forage crops consumed. This requires that the idle lands be used for stock, and the value of grasses and legumes be understood; that the soil be deepened, strengthened and made more active by deep plowing, intensive cultivation and turning under of green crops. It has been the general custom of Southern farmers, whether in cotton, sugar, rice or tobacco districts, to depend on one cash crop and buy their supplies of food and clothing with the proceeds. The agents of the Demonstration Work urge upon the people the production on the farm of all home supplies possible, with the result that the money which formerly went for current debts now goes into home improvements, better clothing, better stock, and more schooling.

Dr. Knapp contends that poor farming is the natural result of a lot of bad practices, and must be treated as a defect in art rather

than as a lack of intelligence. As it was found necessary at an early stage of history to evolve from the mass of ethical teaching a few general rules for living, called "The Ten Commandments," by which a man could be moral without going through a course in theology, just so, in order to instruct the average farmer how to successfully conduct his farm operations so as to secure a greater net gain from the farm, Dr. Knapp has deduced from the mass of agricultural teachings a few general rules of procedure. These he calls the "Ten Commandments of Agriculture," and by practicing these commandments a man may be a good farmer in any state without being a graduate of an agricultural college:

- (1) Prepare a deep and thoroughly pulverized seed bed, well drained; break in the fall to the depth of eight, ten or twelve inches, according to the soil, with implements that will not bring too much of the subsoil to the surface. The foregoing depths should be reached gradually.
- (2) Use seed of the best variety, intelligently selected and carefully stored.
- (3) In cultivated crops give the rows and the plants in the rows a space suited to the plant, the soil, and the climate.
- (4) Use intensive tillage during the growing period.
- (5) Secure a high content of humus in the soil by the use of legumes, barnyard manures, farm refuse, and commercial fertilizers.
- (6) Carry out a systematic crop rotation with a winter cover crop.
- (7) Accomplish more work in a day by using more horse power and better implements.
- (8) Increase the farm stock to the extent of utilizing all the waste products and idle lands of the farm.
- (9) Produce all the food required for the men and animals on the farm.
- (10) Keep an account of each farm

produce, in order to know from which the gain or loss arises.]

Dr. Knapp's method of teaching these principles is as practical as the principles themselves. In each state where the work is conducted there are, besides the state agents, one or more district agents and a number



DR. SEAMAN A. KNAPP

of local agents. The state agent in every case is a man of education and experience in agricultural science, a man of executive ability and tact. He supervises the work in the state, having direct charge of the district agents, who in turn supervise the local agents. The local agent is required to be a practical, progressive farmer, who has "made good" on his own farm and enjoys the confidence and esteem of his neighbors. It is this local agent who carries out at first hand

the actual demonstration idea, it being his duty to secure farmers who will agree to plant and cultivate from one to five acres of their farms according to the instructions of the department. Many times the general viewpoint is one of doubt and suspicion. If, however, one man in a neighborhood can be induced to plant a trial plat all his neighbors will watch it closely, and if he succeeds the people will swing from a stubborn doubt to an unreasoning faith and become the most zealous converts. Then, too, within rural communities there is considerable local rivalry. If John Smith takes a department

fies all the neighbors who are interested in advance of this visit and they meet him at the demonstration plat. At this time what is called a field school of instruction is held, where the farmers discuss agriculture in general and any particular phase of the demonstration. In the course of these discussions it often develops that the majority of those present have never fully complied with the best methods of farming. They thought they knew all about farming and charged their products and failures to the seasons or the land.

One farmer at a public meeting held in an



DEMONSTRATION FARM OF BEN FLEMING AT WASHINGTON, ADAMS COUNTY, MISSISSIPPI
Triumph cotton, showing a yield of two-thirds bale to the acre

demonstration, Sam Jones thinks he can beat it and quietly informs his neighbors that he intends to do so. Others join in the competition and the result is that all produce better crops.

Having secured his demonstrators (as the men who agree to follow instructions on a small part of their farms are called) the agent proceeds to instruct them as to the preparation of their land for planting, the selection of the seed best adapted to the local conditions, and the cultivation, step by step, of the crop. The demonstrator does all the work and furnishes the land, seed, tools and teams. The agent visits him once a month to see that instructions are carried out and to give assistance. The agent noti-

Alabama town two years ago expressed his views as follows:

"I was born in a cotton field and have worked cotton on my farm for more than forty years. I thought no one could tell me anything about raising cotton. I had usually raised one-half a bale on my thin soil and I thought that was all the cotton there was in it in one season. The demonstration agent came along and wanted me to try his plan on two acres. Not to be contrary, I agreed, but I did not believe what he told me. However, I tried my best to do as he said, and at the end of the year I had a bale and a half to the acre on the two acres

worked his way and a little over a third of a bale on the land worked my way. You could have knocked me down with a feather. This year I have a bale and a half to the acre on my whole farm. If you do not believe it, I invite you to go down and see. Yes, sir, as a good cotton planter I am just one year old."

The agent in some cases drives a team of strong mules or horses attached to a wagon filled with improved implements. At the field meeting this team and the improved

In the Southern states nearly one-half the farms are tilled under the tenant system. In South Carolina, Georgia, Alabama, Mississippi and Louisiana more than sixty per cent of the farms are worked by tenants. The poor equipment of such farms and the low earning capacity of the tenant appeal strongly for help.

The tenant is urged by the demonstration agent to make a better crop and raise everything necessary for his support. He is shown that as soon as he proves himself to be a progressive and thrifty farmer it will add to his credit. He can then buy upon better terms



SEED-CORN DAY AT MONROE, NORTH CAROLINA

implements are used to show how much more and how much better work can be done in a day by having good equipment.

The demonstration is limited, at first, to two or three standard crops, including the principal cash crop, cotton; general food crop, corn, and a well-known renovating crop, cowpeas. The farmer knows cotton, corn and cowpeas. If he can be shown that a change of methods or a change of seed will greatly increase the crop the first important step has been taken. They are then ready to believe in more.

The demonstration is simple and at first small. When the farmer sees the advantage of the better methods he will increase the area as rapidly as possible. Generally he has neither machinery nor tools to inaugurate the plan on a large scale at first.

and will soon own his farm. The landlord is seen and urged to look more closely after his farm; to improve his farm buildings, because this is necessary to the securing and retention of the best tenants; to furnish better implements or assist his tenant to purchase them; and to insist that good seed shall be used and that there shall be better tillage of the crop. Many proprietors take the deepest interest in having their tenants taught better methods.

In an interview with Dr. Knapp one cannot fail to be impressed with the fact that, though a man of college education, holding several degrees, he is first and always a plain man, the friend of the common people. His instructions to the farmers are simple, intensely practical, appealing to the farmer's judgment. Advice is given only along thor-

oughly tested lines, inclining always to the safe side. I wish to quote a letter received, one of many, by Dr. Knapp, and ask you after you have read it if you think this man could ever have been reached and benefitted by printed bulletins concerning farming:

Berry, Ala., October 3, 1908.

DR. S. A. KNAPP.

Sir: I have thought that I would rite you for some time, but for neglect have waited to long. I am one of your demonstrators and as true a one as you have. Words can not express my thanks to you for your help and what you have learned me about farming. This year I had

ahead of anything we have had here before. Anything you will send me will be more than appreciated. When I get any mail from you I dont stop till I read it throe. The farmers are coming more together with your work than anything that ever came along. I think in a few years the farmers will be rite along together. Dont forget me, anything you can due for me will be glad to get it. The knights are giting long and I would like to read something from you every knight.

I will close. Hope you have not wearied over this hard wrote letter. I am your friend,

J. A. KELLER.



A FIELD MEETING WITH BOYS AT BENNETTSVILLE, MARLBORO COUNTY, SOUTH CAROLINA

1 acre, this coming year I am to put my entire crop in as I did that acre. I am a singlehanded man, no help and renting land. Some say they don't see how I make a living, just me to work and feed two big mules. I tell them that the mules feed themselves and if I make the landowner any money I will make some for me. I think by having an early start that I can get in 8 acres this time, 3 in cotton and 5 in corn. I think I will get 3000 lbs. of cotton off my acre if it all opens. The seed you furnished me is the finest that I ever saw, me and two other men picked 100 boles that Triumph cotton to my acre that weighed 3½ lbs. That beat anything I ever saw. The Triumph cotton has been gined here and found to beat 40%. That is far

Yet another letter in Dr. Knapp's possession, after telling what the work has done for the writer, closes with "It is the best since Christ came. Let her come!" Sacrilegious? No! you will not think so if you stop to think a moment. Picture a man owning a small, poor farm, owned by his father before him; the farm becoming more run down every year, the farmer and his family dropping in the scale of human units, the wife a drudge and the children social outcasts because of their poverty; the man dull and hopeless of the future. He inherited unthrift; his father was poor; he is poor; his children will be poor. Nothing short of a miracle can make life worth the living. Then one day a demonstration agent knocks at the door and tells him of a better way—methods he knew nothing of. (He was too poor to go to college.) He finds that he can increase and even quadruple his crop by a slight change of methods, by rotation of crops and other readjustments. Gradually the fences are repaired, the weeds disappear from the fence corners, the farm begins to pay, his wife and children are better clothed—he actually sees a future. Is it small wonder that he feels much as our devout Methodist forefathers felt when they saw visions of glory, and instead of a "Halleluja" he ejaculates from a full heart: "It is the best since Christ came. Let her come!"

But the Farmers' Co-operative Demon-



DR. KNAPP AND GROUP OF AGRICULTURAL STUDENTS

stration Work does not rest satisfied with its work among the adult farmers. They are reaching out after the boy on the farm.

Thinking people have noted with alarm the rapid growth of cities as compared with the country; the concentration of wealth in the cities and the gradual transfer of political influence from the country to the city. The young man in the country meets this problem: Shall he stay on the farm, accept the wages offered, and live the comfortable life such wages can provide, or shall he go to the city where he can earn three to five times as much and have what his ambition aspires to? If that is the whole of the proposition and he is a man of judgment and energy he will go to the city. The number that make this choice will increase in geometrical ratio as long as rural conditions remain as they are.

It has been suggested as a means of keeping the young man on the farm that rural conditions should be improved, that the country should have better highways, better schools, free rural delivery, country telephones, more newspapers, all good and worthy of commendation, but the flow of young men from the country to the city will not be arrested in the least so long as the earning capacity of the average city laborer or clerk or professional

man is at least fivefold what the same talent can command in the country. What has the Farmers' Co-operative Demonstration Work done about it?

It has formed Boys' Corn Clubs in several states. Each boy in these clubs agrees to plant and cultivate an acre of his father's farm according to the directions issued by the United States Department of Agriculture. He is given all the advice, assistance and encouragement possible by the County Superintendent of Education, and by the rural teachers who co-operate with the department and its agents. The merchants and other public-spirited citizens help by contributing prizes for the largest yields. The average American boy is spurred on to indomitable energy by the lure of such prizes as fifty dollars in gold, a nice buggy, a first-class bicycle, a fifteen-dollar suit of clothes, etc., and after he has spent a season competing for these prizes he has absorbed more scientific and practical agriculture than he would from books in years. The past season Dr. Knapp offered a free trip to Washington for one week to the boy in Mississippi who would make the largest yield of corn on his acre. His example was followed by Prof. O. B. Martin, Dr. Knapp's assistant in the Boys' Corn Club Work, by a

similar offer to the boys of South Carolina. The boys of Arkansas were given the same chance to come to Washington by the offer of the Bankers' Association of the state, and the Petersburg Board of Trade of Virginia made a similar offer to the boys of that state. From the hundreds of boys who competed for this prize trip, the winners were: DeWitt Lundy, of Lexington, Mississippi; Bascomb Usher, of Bennettsville, South Carolina; Elmer Halter, of Conway, Arkansas, and Ralph Bellwood, of Manchester, Virginia.

DeWitt Lundy won county and state prizes, in addition to the prize trip to Washington. His yield was sixty-three bushels, he used no fertilizer and the total cost of production was \$9.15.

Bascomb Usher won \$10 county prize, \$75 state prize, in addition to his trip to Washington. His yield was 152½ bushels, or 8,540 pounds of shelled corn. It cost 31 cents a bushel to raise it and he has sold some of it for seed at \$2 per bushel.

Elmer Halter won a \$20 suit of clothes and a rifle in the county contest; \$30 in cash and a combination plow at the State Fair, in addition to his trip to Washington. He made a yield of 85½ bushels at a cost of \$35.20. Others made larger yields, but other points were considered.

Ralph Bellwood made a yield of 122 bushels at a total cost of \$17.80, making the cost per bushel only a little over 14½ cents.

It is safe to assert that the average production per acre in those states ranges from 12 to 15 bushels per acre.

These four proud, happy boys came to Washington at the same time, saw all the sights of the Capital, were received by the Secretary of Agriculture, presented with diplomas in agriculture, something never known to be given to boys in the history of that science.

Do you think these boys would give up the farm and come to the city to accept four, five or even ten dollar a week positions? We think not.

THE HARVEST MOON

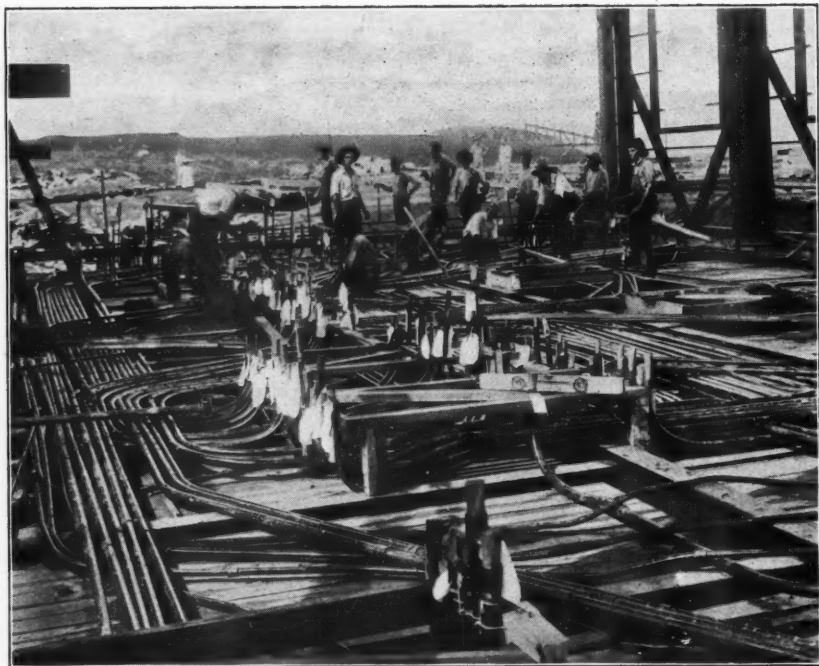
By EDWARD WILBUR MASON

THE autumn brings the sunset of the year,
 And asters swinging by the pasture bars
 Flame in the light like amaranthine stars,
 And mists of beauty gather far and near.
 Lo, in the eastern heavens bright and clear,
 The huge moon through the long autumnal eves
 Sends down forevermore upon the sheaves
 A world-wide smile of glory and of cheer!
 Now is the earth for feast Olympian spread;
 Blown like a scent upon the winds of mirth
 Keen laughter as of gods floats down the night.
 And angel visitants from overhead,
 Passing unseen from heaven unto earth,
 Throng on the Jacob's ladder of the light!

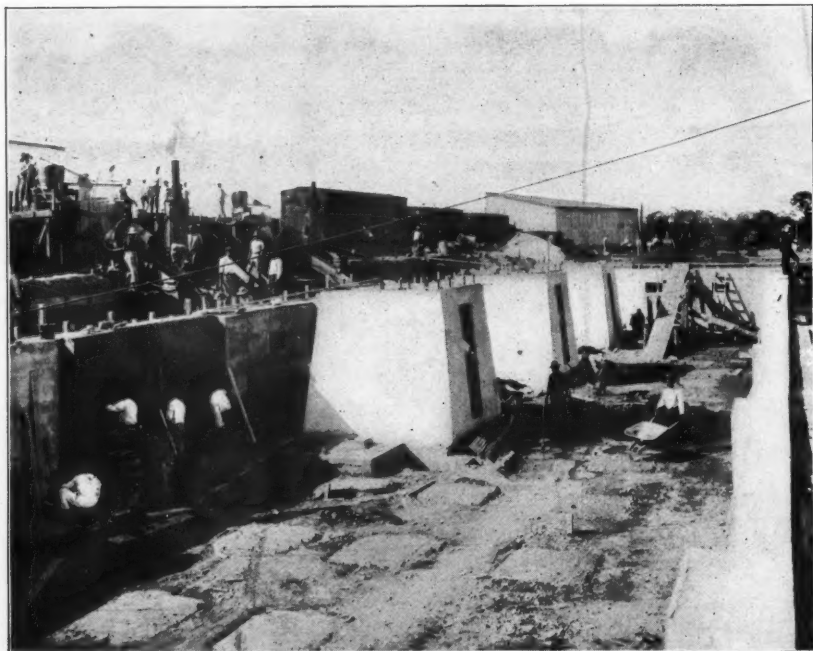
Panorama of the Panama Canal



THE Twentieth Century has been called the camera age. There is not an incident, not a place trod by the foot of man, or an occurrence that has not at some time been focused for the camera by either expert or amateur. The little film or plate radiates information at a glance, where pages of text and books in volumes were heretofore required to make clear similar occurrences or views. No words can equal the eloquence of pictures, showing the process and progress of the work on the Canal Zone, and photographs taken at this time will be even more impressive in a few years than now. Within a half decade this tangled jungle, and pathetic relic of an abandoned French enterprise, representing the dreams of four centuries, will be transformed into the scenes of concrete achievement. From every point of view the vista of the Canal presents scenes that must thrill the American heart with the pride of achievement, and convince every citizen of the United States that he is living in the day of the real things. No one can look upon the great work being carried to completion on the Isthmus, without having his thoughts deflected from the trivial national squabbles, that suggest small family bickerings at a breakfast table. The mind of the nation is being more and more fixed on the high achievements of engineering, sanitation and settlement which are being carried out on the Zone, and are already an object lesson to the whole world. The pictorial pages of the National for May and June graphically relate a story which no pen could adequately describe. The pictures are a veritable album of American achievement.



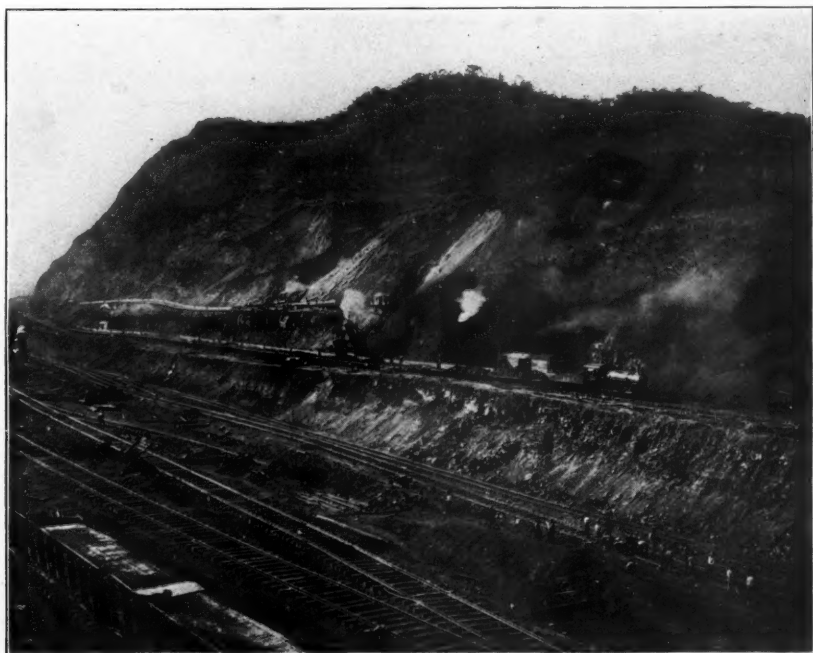
CONDUIT INSTALLATION, GATUN GENERATING STATION—READY FOR
POURING OF CONCRETE FLOOR



BUILT FOR THE CENTURIES—GATUN DAM



COLD STORAGE PLANT AT COLON, WHERE EVERY EATABLE KNOWN TO MAN
SEEMS TO BE STORED



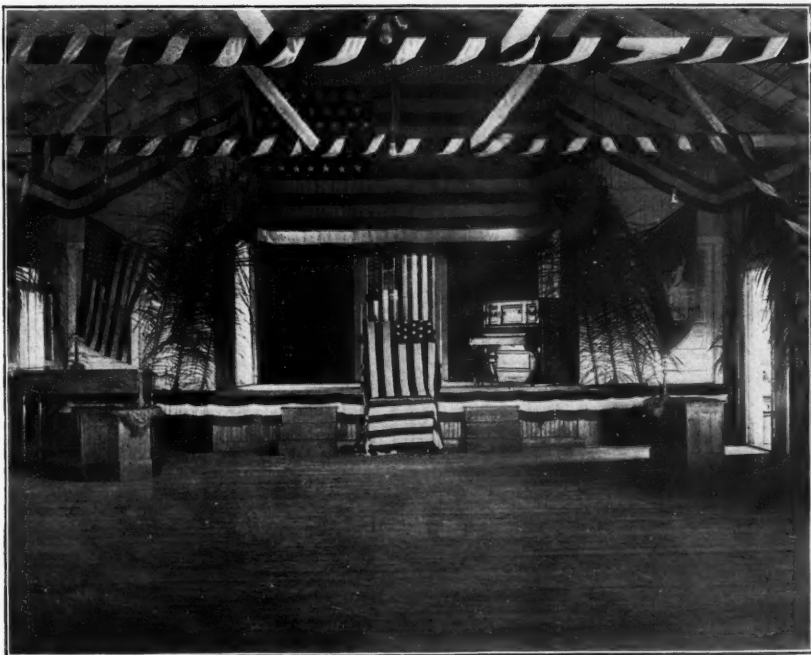
TERRACE ON TERRACE, ROADWAY ON ROADWAY, THE SHOVELS EAT INTO
GOLD HILL



READING ROOM AT THE Y. M. C. A.



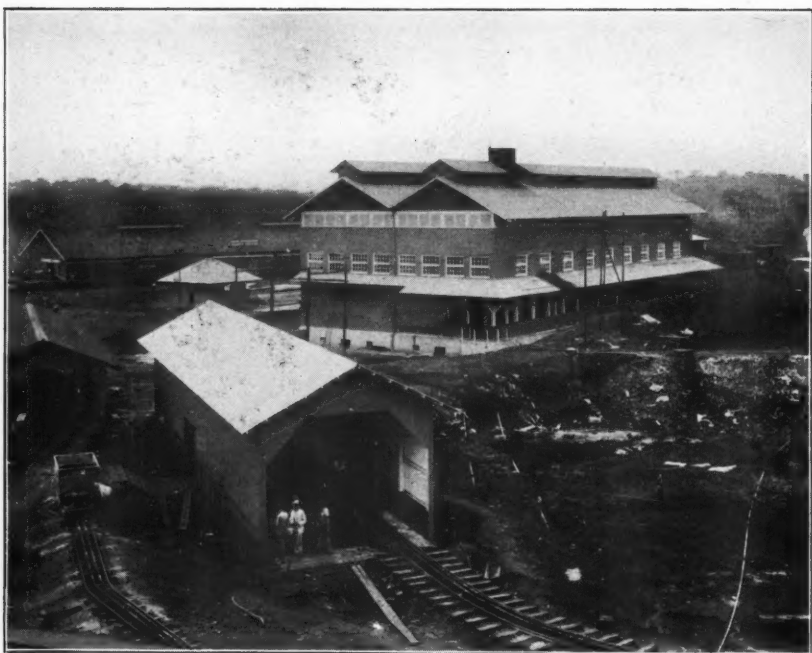
CULEBRA STATION, ON THE PANAMA RAILROAD



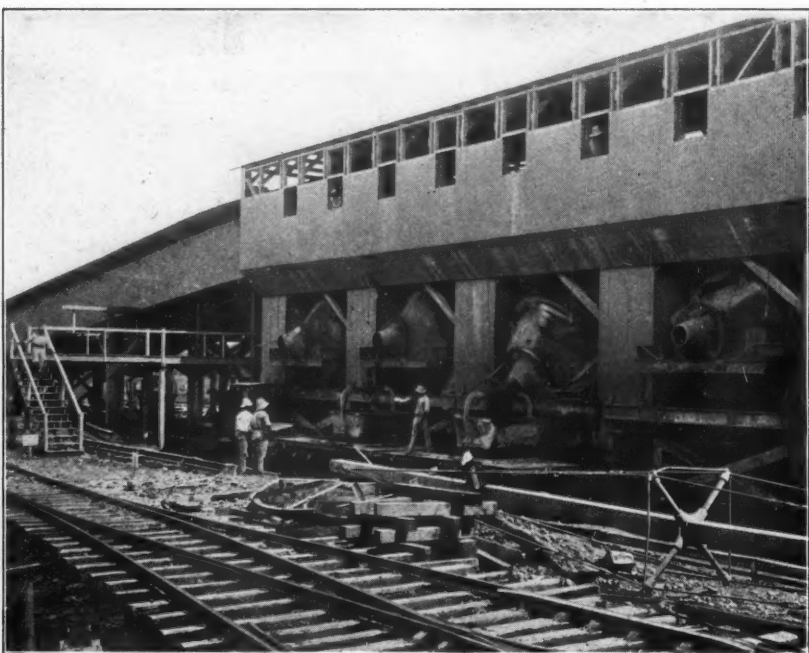
THE "MOTHER COURT" AT EMPIRE, A HOSPITABLE LODGE OF THE ISTHMIAN KANGAROOS



THE SUSPENSION BRIDGE AT EMPIRE WHICH CROSSES THE CULEBRA CUT
A FAVORITE RENDEZVOUS



THIRD RAIL ELECTRIC SUBWAY IN CONNECTION WITH GATUN CEMENT MIXERS



THE GIANT CONCRETE MIXERS. ONE IS TIPPING UP TO LOAD A CAR-BUCKET



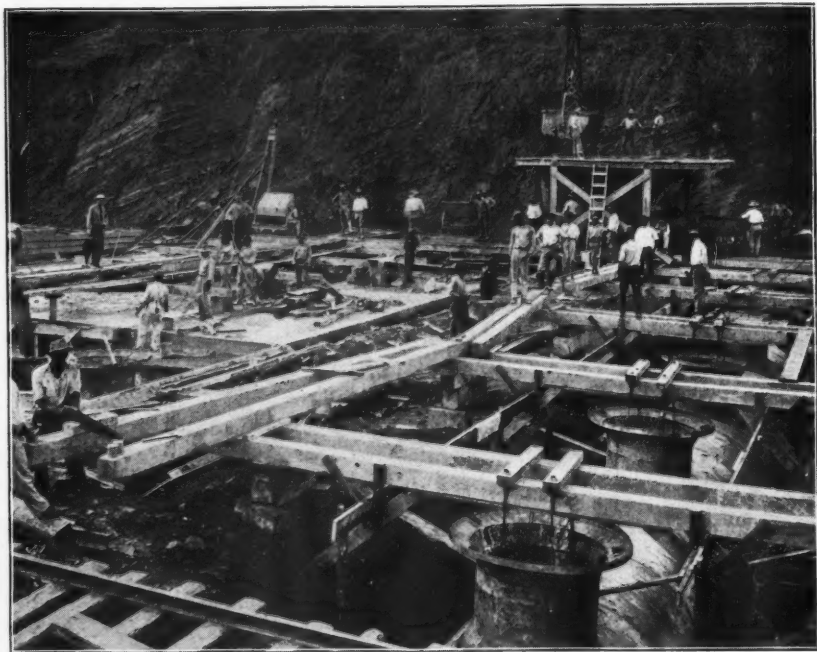
WHERE THE LOCK WALLS BEGIN TO RISE



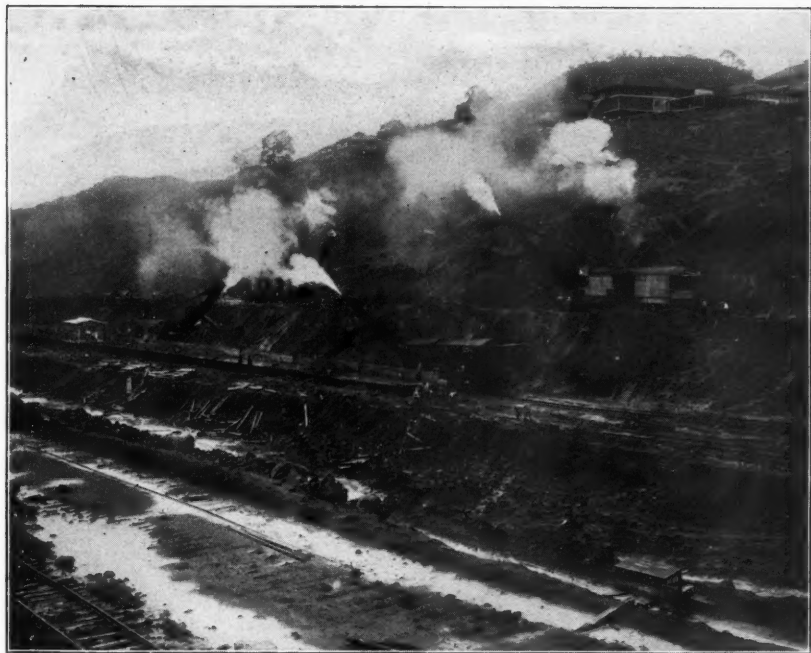
A VISTA OF VERY "WET DIGGINGS," WHERE EVERYTHING IS AFLOAT



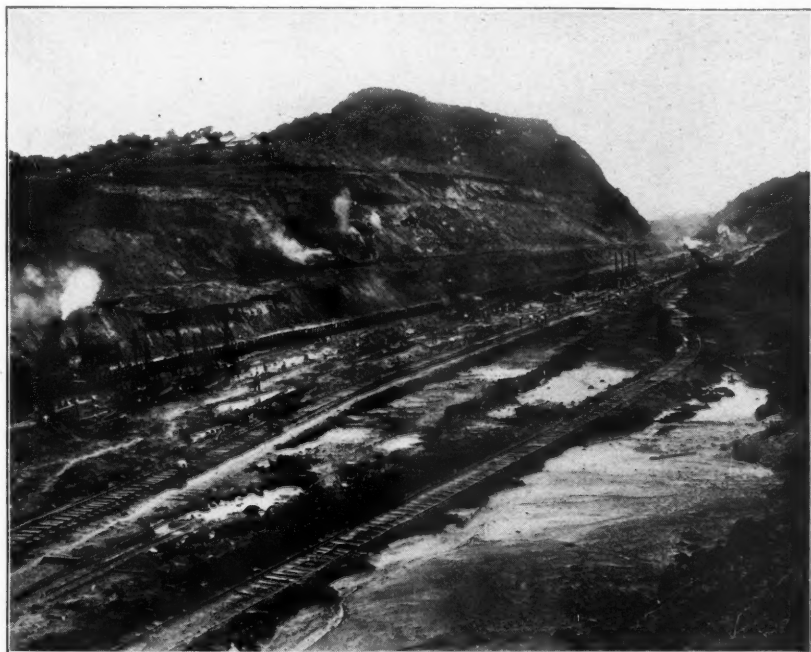
WIRE TRANSPORTATION FOR BUCKETS OF CEMENT, CROSSING THE
GATUN LOCK SITES



CONCRETE CONSTRUCTION AT GATUN, WHERE WATER WILL, COME IN FROM
BOTTOM TO LIFT THE VESSELS



THE HEAVY SLIDE AT CUCARACHA, WHICH ARRIVES PUNCTUALLY EVERY YEAR



BIRD'S-EYE VIEW OF CULEBRA CUT, THROUGH WHICH A TUNNEL IS EXCAVATED EVERY MONTH



*"Dorinda had her arms around the baby and was clasping him so tightly,
that it almost hurt him"*

The Hand of Providence by Miriam Sheffey

Illustrated by
Blanche Chloe Grant

THE Lorimers had been married for fifteen years, and no child had come to make glad their hearts and home.

During the early years of their married life they not only longed for children but expected them, and openly rebelled against their barren condition. As time passed on, however, and their hopes still failed of realization, they sank into a patient and pathetic silence, speaking no more even to each other of their little son—that tardy little son who was always coming yet never came. But, though their lips were sealed, the yearning and disappointment locked in those lonely hearts was known to all the small suburban world. There was a hungry look in Nathan's eyes and a tearless wistfulness in Dorinda's which were easy of interpretation. Nathan felt no resentment toward his wife on account of her dereliction. On the contrary, his love for her seemed to grow and strengthen with the passing of the desolated years. Their very childlessness drew the twain nearer and nearer together so that after a decade and a half of mingled shadow and sunshine they were still young lovers.

Nathan's fondness for children was proverbial. In his youth he had driven his poor mother well-nigh distracted by filling the house to overflowing with borrowed babies, turning the neatly kept lawn into a public playground, and giving every ragged urchin in the neighborhood a free ticket to the apple orchard. Even at that tender age he had dreamed dreams and seen visions of a future domesticity in which sweet Dorinda Deere and a blue-eyed baby figured prominently.

After his marriage Nathan ceased to

borrow the babies of the community. He found them entirely too unsatisfying. Their presence in the house had an irritating effect upon him, causing him to realize all the more fully the cruel injustice of his lot. Without children there was no incentive to ambition, nothing to plan for, nothing to live for, nothing to strive for. He did not ask to be a patriarch. One son, only one little blue-eyed boy—this was all he craved or needed or demanded.

On the eve of the fifteenth anniversary of their wedding Nathan and Dorinda were sitting together before their bedroom fire with sad eyes fixed upon the flames. They often sat this way on rainy evenings when visitors were unlikely to intrude upon them. It was springtime, but as there was a distinct chill in the air the glow of the open fire was very comforting. Outside the April rain fell softly on the young grass and budding lilacs. The room was sweet with the odor of April blossoms gathered that morning in Dorinda's famous garden.

Dorinda occupied a low rocker close to Nathan's chair. Her hand was clasped in his, her soft cheek lay against his knee. Her childish face looked wan and pale in the flickering light—not wan with physical sickness but with gnawing heart-hunger and secret sorrow. Her eyes, which matched the violets upon her bosom, were bright with unshed tears.

In her lap lay a letter she had received that day and which she had just read aloud to Nathan. It was from Mildred Chaloner, a young cousin of hers who had married eighteen months before and was writing now to invite them to her baby's christening.

"Oh, he is such a splendid, *splendid* boy, Dorinda!" Mildred wrote with all a young mother's enthusiasm. "The very image of his father! We are going to call him Robert Nathan, after your husband and mine, dear!"

Nathan and Dorinda were not talking much tonight. They loved each other so dearly that continuous conversation was never a necessity. Besides, their hearts were unusually sad just now, unusually stormy and resentful. Every sentence in Mildred's happy letter was like a knife-thrust. It really seemed as if she might have written less exuberantly.

Suddenly Dorinda's eyes brimmed over and two big shining drops fell upon the letter in her lap. She hid her face on Nathan's hand and sobbed wildly, hysterically, unrestrainedly. It did not occur to Nathan to utter reproaches or remonstrances. There was a suspicious glister in his own eyes, a fierce battle raging in his own rebellious breast. He smoothed Dorinda's hair with his free hand and waited patiently for the passing of the storm. Dorinda seldom yielded to tears, but when she did the outburst was tempestuous and prolonged.

When she grew quiet finally and Nathan's hand had wiped away her tears, they proceeded to discuss with energy the most cherished desire of their united hearts, a subject which for so long had been studiously avoided. The clock struck ten, eleven, twelve. The cheery fire died a reluctant death. The rain ceased and a pallid moon peeped through the parted curtains. Still Nathan and Dorinda talked and argued. At one o'clock Dorinda crept into the big chair where Nathan sat and laid her head in the dear hollow of his shoulder. When the dawn came they were still sitting in the great old chair talking more eagerly than ever, and laughing, too—a foolish, happy, irrelevant laughter which they scarcely understood themselves.

Down in the city at Nathan's law office his junior partner and pretty stenographer showed no surprise at the failure of the senior to appear that morning. Every employee in the establishment knew that this was Mr. Lorimer's wedding anniversary. It was as sacred as the Sabbath,

and no business matter was sufficiently important to interfere with its observance. Nathan and Dorinda had made it a practice to spend this hallowed holiday in a neighboring town with Dorinda's white-haired, beautiful old mother, but today the gentle lady watched for them in vain. At dinner time she received a belated telegram announcing that her children had gone holiday-making in another direction, and would write an explanation later.

When the Lorimers boarded the early train that morning they were like a bride and groom starting out upon their wedding journey. Dorinda was a little thing, as fresh and fair today as a newly opened flower. Her tailor-made suit of soft dove-color and her pale-grey hat, gloves and boots, all purchased especially for this anniversary, were admirably suited to her girlish figure and the pastel tints of her hair, eyes and complexion. An unfamiliar sparkle and brightness in her manner and appearance seemed to have usurped the place of the old sad wistfulness. As they rode along through the spring sunshine, Nathan laid his hand over her gloved fingers and looked at her so worshipfully that she flushed like a schoolgirl.

Nathan had opposed so bitterly the move which they were about to make. They had spent the entire night threshing out this problem of adoption. How fiercely, how determinedly she had fought to win the victory! He was afraid he had acted unwisely in yielding even conditionally to her importunities. However, this girlish happiness and beauty were so alluring that he felt repaid for his concessions.

When they alighted from the train at Lancaster, Nathan called a cab, and they drove directly to the orphan asylum, which was located on the outskirts of the town. Evidently the whole institution was taking a springtime holiday. The old-fashioned yard was filled with children who romped and played over the soft grass. Some of the more sober-minded ones were working in the flower-borders or raking off the dead leaves and other *debris* of wintertime. Even the young teachers, with sunbonnets covering

their heads and big aprons over their dresses, had come out to take a part in this general spring-cleaning. There were white-capped nurses here, there, everywhere, leading or carrying their helpless charges, and over yonder half a dozen pale-faced little invalids were coming from the infirmary to get a breath of April sweetness and a flash of sunshine.

Nathan and Dorinda left their cab at the gate and walked up the violet-bordered pathway. Dorinda was flushed and tremulous with excitement and expectancy. At the sight of this troop of orphaned little ones her mother love rose to fever heat. As for Nathan his heart throbbed with bitterness, and the old sense of injustice crushed down upon him like a weight. Why was the world filled with homeless babies when a few miles away that sad old house, the seat of his forefathers, stood cold and empty? Why—

His reflections were interrupted by a sudden joyous cry from Dorinda.

"O Nathan, Nathan! Look at him! Look at him! The beautiful boy! He shall be our son, Nathan, our little, little son! We shall ask no questions, but just take him as he is. What do we care who his father and mother were? He is our baby, now!"

A sturdy little figure was standing on the veranda with his cap pushed back from his forehead and his arms akimbo. His hair gleamed in the April sunlight. His eyes were violet-blue like Dorinda's own. He looked half-shy, half-brave, wholly sweet and lovable. He was clad in his Sunday best, for one of the teachers had just brought him back from town where she had had his picture taken at her own expense.

Dorinda ran lightly up the flight, and sitting upon the topmost step, drew the child toward her and kissed him gently.

"Little son," she said, "you look as if you are watching and waiting for the coming of some one whom you love. Don't you know me, sweetheart? Don't you know your little mother?"

The child put up his hand and patted her peach-blossom cheek. Then he threw his arms around her neck and kissed her rapturously.

"My muvver!" he cried. "My pretty,

pretty muvver! Oh, I'm so glad, so glad you've tum!"

Nathan left them out there making love to each other in the sunshine while he went on into the office to consult the superintendent. Nathan's own heart yearned paternally over the handsome boy, who had just called him "Farver," and had held up his lips so very confidently. Yet the other side of Nathan's nature, the practical side, protested against the adoption of this alien blood. The risk and responsibility of such a step were heavier than he cared to shoulder. Dorinda, foolish Dorinda, was in too great a state of exaltation to view the matter sensibly. She was so practical in other things, but in this one instance she had allowed her heart to run quite away with her head. After their prolonged argument of the preceding night Nathan had granted her reluctantly the privilege of taking one of the orphans from the Asylum on probation. He would not allow her to adopt it legally until they had tested the experiment and studied the problem in its every phase. She had laughed so happily when this grudging consent was wrung from him. He, too, had laughed, though he knew not why.

Nathan's interview with the superintendent was altogether satisfactory and delightful. The superintendent, vigorous divine of seventy-five, had given his life to the rescue of orphaned children. Though anxious to place his charges in suitable homes, he thoroughly respected the scruples of level-headed men like Nathan Lorimer, and seldom attempted to influence them against their better judgment.

"However, I think you need fear nothing in this case, Mr. Lorimer," he said, going to his cabinet and taking down a book of records. "There was no irregularity about little Donald's birth. His name—"

"My wife and I prefer to know nothing whatever about his origin or his past," Nathan hastily interposed. "If we decide to adopt him we shall give him the family name and rear him as our own son. We shall wish him to believe always as he seems to believe at present that we are his natural parents. In all probability

I shall return the boy at the end of his probationary period."

The superintendent replaced the record book in the cabinet and smiled inscrutably.

"Very well, Mr. Lorimer," he said. "That lies entirely with you, sir. Little Donald will find a warm welcome awaiting him whenever you see fit to return him. He is the pet of the institution. Ah, Mr. Lorimer, it would be very hard for us to give him up, sir! In all my years of work among these unfortunates I have made it a rule to show no partiality, but Donald has a way with him, Mr. Lorimer. He creeps into the heart so gently, so imperceptibly that one scarcely realizes it. You will find it very difficult to part with him after a month's acquaintance, sir!"

Late in the afternoon, the cabman returned according to instructions, and the Lorimers, with Donald stepping proudly between them, walked once more along the violet-bordered pathway. The janitor preceded them, carrying a box containing the few articles of wearing apparel belonging to the child. Following the Lorimers came a dejected and heterogeneous procession composed of nearly all the officials, inmates and employees of the institution. More than one pair of eyes was wet with tears, and the dark-haired teacher who had had the boy's picture taken in Lancaster that morning sobbed uncontrollably. Little Donald was indeed a favorite.

When Nathan and Dorinda reached home in the purple twilight everything was in readiness for the reception of the child. Old Aunt Bella, the dusky culinary queen, who held royal sway over Nathan and Dorinda, had been carefully instructed in the early morning, and had brought down from the dust and cobwebs of the garret the little bed, dining-chair and rocker which had been Nathan's in his babyhood. There were some battered toys and dilapidated picture-books lying in a corner of Dorinda's bedroom.

Aunt Bella, with characteristic impulsiveness, swept the boy to her ample breast.

"Lawd, chillun, ef I ain' glad tuh see dis day!" she cried, rocking him back and forth in her motherly arms.

Oh, the tea-table with covers laid for *three*. At the most important place there were a silver cup, knife, fork and spoon, a wonderful plate with gorgeous chickens painted on it, and a threadbare bib adorned with apples outlined in turkey-red. These were all relics of Nathan's childhood.

After the meal, Nathan led the boy into the glorified bedroom, and Dorinda undressed him before the fire, which Uncle Isham, Aunt Bella's better half, had lighted on the hearth. Nathan did not take an active part in these bedtime ceremonies, and yet he experienced no feeling of jealousy or aloofness. Dorinda's radiant smiles included him as a matter of course, and more than once Donny ran to him and climbed upon his knee, crying ecstatically:

"Farver! My farver! I love you, I love you! I love you!"

When the child had said his prayers at Dorinda's knee, she took him on her lap and rocked him to sleep in the good old way without regard to modern and scientific methods. Nathan watched her adoringly as she swayed there in the glow of the fire with the child's head on her breast, a soft melody in her throat, and that strange mother-radiance on her uplifted face. There was a wonderful peace in Nathan's heart, a wonderful light in his contented eyes. Everything now seemed so sweet, so right, so natural!

Little Donald's presence wrought a marvellous transformation in the Lorimer home. Dorinda felt no shrinking from those humble services against which so many mothers rebel. To bathe and dress this joyous baby, keep his sun-kissed hair in order, plan his meals, make his new clothes and mend his old ones, tie his shoestrings, darn his stockings,—all these to her were but labors of love. She had been so lonely before he came and life had seemed so purposeless. Now, from the early morning when a little hand fell like a roseleaf upon her eyes and waked her, every moment of the day was full of interest and joy. The child flitted laughingly from room to room, filling every corner of the dim old mansion with sunshine. He followed Dorinda over the lawn and gardens, gathering hyacinths and lilies-of-the-valley, romping with

Nathan's collie, and incidentally making friends with all the passers-by. He paid hourly visits to the cabin in the back yard where Aunt Bella and Uncle Isham lived. He fed the chickens in the poultry lot till the poor things were ready to burst, chased the pony around the paddock and superintended Uncle Isham every morning and evening when he milked the Jersey. On rainy days he looked at picture-books, or played with the new toys Nathan had bought for him, and the old ones from the garret. Toward tea time, on pleasant afternoons, Dorinda dressed him in a fresh white linen suit and took him to the station to meet his "Farver," that fine new father who was growing younger, handsomer and happier every day. Nearly all the pedestrians they encountered took time to stop and welcome the "blue-eyed kiddie" who was living with the Lorimers, and at the station he was invariably the center of a coterie of admirers. Letters of congratulation poured in from every direction, gifts came for Donny by both mail and express, and the neighboring suburbanites called *en masse* to pay their respects to "Dorinda's baby." People seemed to take for granted that Donny was permanently established.

Nathan and Dorinda took him to spend a Sunday with Dorinda's mother, who was enchanted when he kissed her voluntarily and called her "Dran'ma" in the most natural manner imaginable.

"Don't tell the other girls, Dorinda," said the old lady proudly, "but I really believe he is the handsomest grandchild I have!"

Nathan and Dorinda talked a great deal now when Donny lay sleeping in his little bed. They talked of all that they would do for him if they decided to adopt him—how he should have this, that and the other thing—a new cart and a more trustworthy pony than the one they owned at present, an electric railway, a sled for next winter's snows, Christmas trees, Easter egg hunts and Valentine celebrations—how when he grew older, they would sacrifice themselves to give him the best that life could furnish in the way of travel and other advantages—how he should be trained as Nathan had

been trained before him, to fix his mind only on those things which are pure and true and honest and of good report—how he should be educated either at Yale or Harvard, and finally be taken as a partner into his father's firm.

When tea was over one bright May evening, Nathan and Dorinda were sitting together on their front veranda. Dorinda, dressed in purest white, was in her old attitude at her husband's feet with her cheek against his knee. She looked so satisfied, but Nathan seemed sad and absent-minded. Dorinda, thinking he was perplexed over business matters, pretended not to notice his dejection.

Out yonder little Donald, guarded benevolently by the collie, was gathering blossoms in the narcissus border. Presently he came across the lawn with his hands full of the fragrant flowers and the sunset light on his happy little face. The dog walked alongside, wagging his tail and barking in an understanding manner when the child talked to him. Donny came up the steps and laid the blossoms on Dorinda's lap. Then, with the dog bounding after him, he flashed away again to pluck a lily-of-the-valley to put in "Farver's" buttonhole.

"Poor little beggar!" said Nathan. "I wish I could see my way clear to keep him, but I cannot make up my mind to it, somehow. It's too risky. Do you think you could pack his box tonight, Dorinda?"

The face Dorinda lifted to him was as white as the dress she wore.

"Nathan! O Nathan!" she cried.

Nathan's eyes were almost stern, almost forbidding. The sorrow and reproach in Dorinda's voice stabbed him like a knife.

"His time is out tomorrow, dear," he said with gentle firmness. "I have written Dr. Whalen to expect us in the morning."

Dorinda felt no anger toward her husband. He was so safe, so sane, and always acted for the best. It was rare that he made a mistake of any kind. She knew full well that it had torn his own heart-strings to come to this decision. She sat there dumbly, making no effort at argument and thinking that this agony might kill her. It was useless to argue

with Nathan when he looked and spoke as he was doing now.

By and by they called the little boy and went indoors, leaving the dog outside to bark weirdly at the Maytime moon.

After a sleepless night, the Lorimers sat down to breakfast as usual, but neither Nathan nor Dorinda could eat. Only Donny seemed to enjoy the viands which Aunt Bella had prepared. Even the two old darkies dreaded the separation. Uncle Isham brushed his hand across his eyes more than once as he served the tempting dishes, and out in the lonely kitchen Aunt Bella was weeping audibly.

Donny was delighted at the idea of going to the Asylum to spend a day with his whilom friends. He thought the plan was for him to return at night just as he had done from "Dran'ma's" after that beautiful Sunday in her home. Nathan and Dorinda did not have the heart to undeceive him. He wondered why Aunt Bella and Uncle Isham were crying, when he ran out to the kitchen to tell them good-bye, but he was too excited to wait for an explanation. He kissed Dorinda on the lips and cheeks and eyes, promising to come back before dark, and "keep care" of her all night. Then he put his hand in Nathan's and they went out together.

Dorinda did not cry. Her anguish was too deep for tears. She gathered up the toys and picture-books and put them out of sight. By and by she would call Aunt Bella and Uncle Isham to take the baby chairs and bed back to their old haunts in the garret. Before calling them, however, she laid her head in the hollow where *his* little head had rested all the night before. She hid her face in her hands, trying not to think, trying not to breathe the perfume of the narcissus blooms he had brought to her at sunset

yesterday. They were in a vase there on the center table, and their fragrance filled the house. Could she go back to the old apathetic life? Could she face it? Ah, well! She thanked a gracious God for that one short month of Heaven. She could keep the memory of it in her heart forever.

She did not know that the collie was barking joyously outside, that there were quick footsteps on the porch and in the entrance hall. She heard nothing, noticed nothing until the little well-remembered hand drew her tense fingers from her face and fell like a roseleaf on her eyelids.

"Wake up, muvver! Wake up!" Donny cried. "We've tum back! De train was dawn away!"

Nathan stood in the doorway, blushing radiantly, laughing boyishly.

"The little beggar's right, Dorinda! The train was very obliging and pulled out just as we reached the station. 'I can't get away to Lancaster today! My WIFE won't let me!' " he sang at the top of a fine tenor voice now glorious with joy.

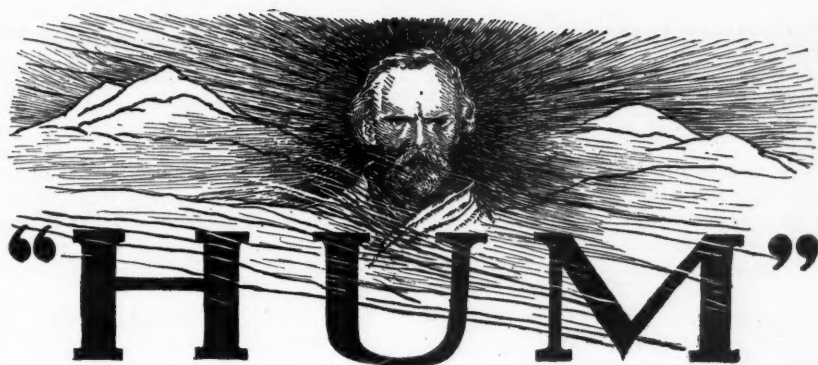
Dorinda had her arms around the baby and was clasping him so tightly that it almost hurt him. The roseleaf hand busily brushed away her tears, those tears of gladness which had risen so swiftly to her eyes.

"O Nathan, dear!" she whispered tremulously. "Don't you see what it means? Don't you see now that we must keep him! It was the Hand of Providence!"

There was a mischievous twinkle in Nathan's eyes, a telltale chuckle in his throat.

"Was it Providence, I wonder?" he said softly. "It may have been. Providence generally has a say so in these matters. But my heart failed me when I left you, and we walked *mighty* slowly, dear!"





A SERIAL

By FRANK HATFIELD

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CHAPTER XVIII

BETROTHALS in Zoeia lasted one year. Neither hasty nuptials nor protracted courtships were approved of by these wise people. Hence, the date when my comrade and I would be central figures in an unusual scene was not far away.

Our time was divided between Bacca, Hokenda and Huan, with occasional trips through the country. Tom worked with Soratiya; in company with Audofa I taught English to apt pupils at the College. Our headquarters were at Bacca. Usually, we could be found at Bestofall, teaching our language to two ardent, affectionate women who loved us with singleness of heart. Tom often said: "It is a joy to talk to the girls in our native tongue; for one can say so many nice things difficult to twist into shape with a foreign dialect." I found it so.

Not infrequently, the "four-in-hand"—as Tom named our party—visited those attractive places, between Bacca and Hokenda, before referred to, or crossed the threshold of Elida's lovely home. It was mostly moonlight, music and flowers. A waking dream of romance.

And brave Moto? He had received special mark of esteem from the College, and gloried in a diamond ornament designed by Zenia.

Many interesting incidents were woven into the warp of our lives. Beoteen again invited us to the observatory. On this occasion the telescope swung into place with Mars in the field. I was astonished to see Schiaparelli's lines resolved into distinct valleys between numerous mountain ranges; and when Saturn came into view, I saw four rings and easily counted ten moons. I mentioned the number to Beoteen. "There are twelve," he said, "two of them very small." Clearer still were the nine moons of Jupiter.

In answer to Tom's question as to whether Saturn's rings were solid, fluidic or gaseous, he replied: "Tooma, when one is separated from a world by an interval of not less than seven hundred millions of miles, it is impossible to ascertain the exact physical conditions. We must think of that to which the term matter is applied, as being quite different from what it is commonly supposed to be. Our earth ideas do not fit well in so remote a region."

I asked him if he thought the planet was inhabited by intelligent beings. "Assuredly," he said. "Can we conceive that our Maker would create so magnificent an abode and leave it desolate? Kesua taught us that all worlds were, or would become, the abode of the Father's great family in different stages

of advancement toward the perfect whole."

Then he showed us nebulae, not mentioned in our books, and the beautiful twin stars. Gentle, courteous Beoteen—he strove in every way to make our evening a pleasant one.

"If I were a woman, I should be head over heels in love with that man," declared Tom after we left.

"I do not wonder," said Fulma.

"Ridiculous!" exclaimed Zenia.

* * *

Fragrant is the memory of an hour—one of many—spent with the Madu Rea. After cake and wine, both enriched by her delightful courtesy—she drew Fulma to her.

"My daughter, Oron has told me of your happiness," she said gently. "You have chosen wisely, my child. Your union will be blessed. The little foreign flower that so long gladdened us will bloom yet more abundantly. You will go from us and come in contact with scenes and people with whom you have had no experience. In the lower life you will be tossed on a sea of disturbing impulses. We stand on a ball of clay in limitless space, my daughter. With the Father's call there comes a change whereby we drop the garment of humanity, wherewith we have been bound, and pass to new associations. We are plants in one of the King's gardens. If we mature here, the veil which has infolded us becomes so tenuous it can no longer hold captive the god essence. Then we are transplanted into richer vineyards. If we do not mature, we pass to conditions more favorable for our development. There are, my child, singular earth influences that tend to render the human garment a restraint to the unfolding of the spiritual flower within. The conditions among which you will go are of this kind. Guard well your spiritual self, your true self, dear one. Your betrothed knows whereof I speak."

"Yes, Madu," I assented, "but hitherto, not clearly as I do now."

"Feanka, my son, you loved our little daughter when first you saw her face, far from the Zoeian shores. Does she know?"

"Not yet, Madu," I answered, astonished. "Has Audofa told you?"

"No, my son, there was no need."

"Ah, Madu dear," cried Fulma, "of what do you speak?"

"Come here, daughter mine, and you, too, Feanka. I will tell you something."

Our eager eyes grew more intense as the Madu rehearsed every detail of the scene in the saloon of the Mohegan. Fulma was overawed. I was about to speak, when the Madu went on: "There is more I must tell you," she said; "something that has not passed my lips for as many years as you are old, my sweet child. Not even to dear Oron, nor the Paerdo. I have not deemed it wise; but now—"

"Ah! what is it?" besought Fulma.

"Little daughter, from the hour of your birth, I have known all the events in your life."

I was speechless. In whose presence did I stand.

"What, Madu?" cried Fulma, clinging to her neck, "you knew that Padu—Termal—?"

"Yes, daughter, all. To bring you here required almost superhuman effort; he contended with forces seen and unseen; he denied himself food that your yearning moans might be stayed."

"Ah, poor Padu," sighed Fulma.

"Not so, dear," the Madu exclaimed, her face shining. "The night is gone; the day star, Razdon, is on high; the Chieftain has come for his bride. See, see, dear ones—" (her voice sounded far away) "the smile—of the Divine—infolds—you." A strange, luminous cloud was where the Madu had been. A moment only—she again was a living personality. I controlled my emotions sufficiently to speak—not of what had happened; that was too sacred, but—concerning what she had previously told us.

"Madu," I said, "with this wonderful attainment, you might know of other countries and people."

"True, my children, one needs only a sympathetic mind to see these pictures at will. I seldom use the gift. My thoughts are mostly engaged with the spiritual advancement of my race. Many of our people possess this faculty. They all possess it potentially."

"Has Zenia this talent?" Fulma asked.

"In slight degree as yet, my daughter."

"And Termal?"

"Yes, in a way, but dimly. Termal is strongly earth-bound; a man of wonderful vitality and energy; a good man, withal."

"And Oron?" I asked.

"To a high degree, doubtless, my son; but dear Oron's mind is ever active with the affairs of our nation, and seldom leaves the terrestrial plane. Audofa is richly endowed, though not a pure Zoeian; otherwise, he would not have received the picture in the cabin of the ship."

"But we saw only the picture," I said. "We did not see Audofa."

"It is this way, my son. You lost his personality, so to speak, and saw only the image present in his mind. Sometime, may be, I will illustrate this to you."

The hour chimed. Fulma rose and kissed the Madu fervently.

As I took her hand I said: "Dear Madu, grant me the same privilege."

"Willingly, Feanka," she said, offering her cheek. "It is the expression of love."

* * *

At the restafa I found my comrade somewhat depressed. In reply to my question as to what had happened he said: "Oh, it is about Zene. There is something queer with the girl."

"Not loving and demonstrative?"

"Well—more so than I supposed any woman could be, and I've seen three or four."

"Yes, Don Selby, I have heard of your conquests."

"Ah! have you? Well, there's one thing flat; you never heard of any wrecks."

"Never, old friend—to your honor be it said. But go on."

"Well—when we are together, and that's pretty often, I have to—sort of reach up. Somehow or other, she seems above my level. Of course, it's only an impression, but it has come to stay. And then she said something today that made my hair rise. We were in the Clematis Bower, talking. Zene suddenly stopped and looked at me. 'Tooma,' she said, 'at times, the picture of a woman with gray hair, and eyes like yours, is close to you. It is there now.' I jumped up and kissed her. 'Why, Tooma!' she exclaimed, 'I think I have been dreaming.' Then we squared accounts. What do you think of that?"

"Well, it is strange," I admitted, "but I wouldn't dwell on it, or allow it to trouble me. Oron wishes to see us tonight. I presume it is about our wedding. Think of it, Tom, one more week and then—"

"Comes, the Grand International Sweepstakes!" he assisted. "The girls are just hustling, Fean. Fulma appears a bit rattled, but Zenia is as composed as a young widow at her old man's funeral. Well—I have no objection to offer."

"Are you ready for the event, old school-mate?"

"Surely—all squared up—balance sheet closed."

"What is the showing?"

"Fine! The past year has been a record breaker. Surplus account greatly increased."

"By the way, my chum, Loreda informs me that Paerdo will see us tomorrow."

"Paerdo? Well—that means soberness for me."

* * *

The senior member of the College was a man of commanding presence, with large, deep, piercing eyes; a high brow where parted, in graceful waves, his luxuriant gray hair; a full flexible mouth, and a chin that indicated firmness. Nothing to suggest a self-immolated recluse. Obviously, a man who enjoyed the companionship of his peers, the researches of his co-workers; but, above all, the profound metaphysical science that had absorbed his thoughts for more than a hundred years.

As I looked at him, I could not realize his age. Youthful fire, manly vigor, and the graces that cultivation, select association, pure thought and self-mastery bring to the middle-aged, were emphasized in his striking and intensely attractive personality.

"It gives me pleasure to welcome you, my brothers," he said, offering both hands. "Your coming marks an era in our history; it will have far-reaching effect among other races. We have known of the existence of people in the lower world. Our hypothesis concerning them has been singularly confirmed by our brother, Audofa. By reason of our isolation, we have been restrained from giving them of our abundance; but our Sovereign Lord has opened our gates, sealed by His hand for thousands of years. The union of our daughter with a fitting representative of the English-speaking race is the initial point from which our gifts may be disseminated. Our foster-child, though not a Zoeian by descent, and thus peculiarly endowed, has, by long sojourn with us, become imbued with our thought and moulded

by our customs and teachings. She, too, will worthily represent us, and, in association with him whom she has chosen, will become the progenitor of a noble people."

I listened to him in wonder. He spoke with the enthusiasm of vigorous manhood. And he was a contemporary of the Madu Rea!

"My sons," he said, "Oron has told you of our country; whereof shall I speak?"

"We come to you as children seeking light," I said.

"On what subjects, my son?"

"We would know of the Father. Our records are incomplete and difficult to interpret. Who, and what, is He? Where does He dwell? What is His relation to His creatures?"

"You seek profound wisdom," he said, his face aglow; "you ask what may not be quickly told. However, we will discourse for a while, and again, take up the theme. Come, sit on either side of me and give me your hands."

As my palm touched his, I felt a slight, pleasing thrill—then, a sense of tranquility—a fading of self.

"The Father," he said, "is the one divine principle in the universe. The supreme embodiment of power, and wisdom, and love. All that we know of through our senses are manifestations of this omnipresent energy. But I must tell you that these manifestations, as they appear to us, have no real existence beyond our consciousness. We are now looking at something on yonder table which we call a glass of water. We all see it, because consciousness, in each, is in the same state. Let it change, ever so little, in either one of us, and the object, to him, no longer exists. Something else has taken its place. (I recalled our strange experience in Huan, and other similar ones.) Hence, my sons, when you think of conditions you have witnessed—and again, may witness—which were at variance with your concept of the divine attributes, you must ponder upon what I have told you; and endeavor to realize that nothing but purity and holiness can be associated with the Father; and that, He being all powerful, there can be no opposing force. We know not why these fantastic images have come into the minds of other men. Do you understand me, my sons?"

"Sufficiently well, father, to cause me to be troubled," said Tom.

"In what way?" the Paerdo asked.

"Why—I might at any moment cease to be conscious of—of Zenia."

"It is true, Tooma," Paerdo smiled, "but our waking consciousness rarely changes but once, on the earth plane."

"Thanks, father! Your words are comforting, and very sustaining."

"It is difficult for me to trace the relation between the Divinity and His manifestations," I said.

"Undoubtedly, Feanka—conditioned by relativity as you are. The relation is a paternal one, in that we emanate from Him—as the ray from the sun, we might say—being a part of the divine essence; and, in fact, are never separate from it; though each member of the human family assumes a distinct individuality which he asserts, until—by deep devotion, profound meditation, and self-renunciation—he rises to a full recognition of his oneness with the Father.

"You have told us of the great circulatory system of water in the lower world; of an immense ocean, of mountains, of rivulets and rivers. Think of these rivulets as entities, which, after many wanderings, return to their source. So go forth the manifestations of the Father. So return they to His bosom—freighted with experiences garnered from their migrations—whence, in obedience to an immutable law inherent in himself, they again appear. They are ever united with their source; though, to you, they seem separate. Be patient, my son. In due time, the mystery of the manifestations will be revealed."

"It is beyond my depth," Tom declared. "I should drown in such fathomless waters."

The Paerdo's dark eyes rested on my comrade an instant. "I think not," he said, "Zenia will help you."

"In this beautiful land where purity and love only exist," I said, "one can easier understand such deep teaching, than in the lower world where evil and corruption seem to be present."

"With such things we have no experience," Paerdo said. "Audofa has told us of fissures in the earth's surface; of great inundating waves of water; of fire coming from the tops of mountains; of irresistible currents of air sweeping across the land; and says that

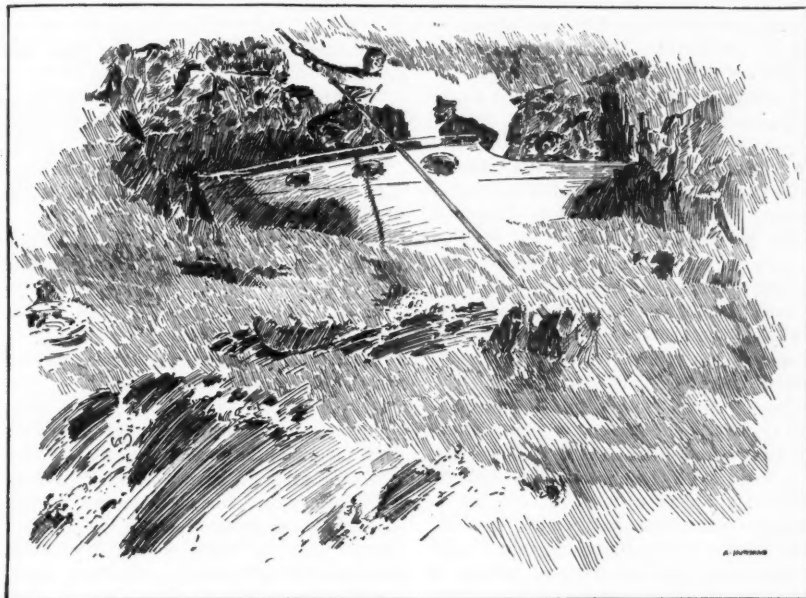
their science men attribute these conditions to efforts on the part of what they call 'nature' to restore a disturbed equilibrium. My brothers and I, thus far, think that the moral states of which you speak may be local disturbances in the mental sea which pervades the universe."

"You lead us through new and fragrant pastures, father," I said; "but let us have no more of the celestial food today, lest we fail to assimilate it."

man and woman. Hence, marriage would have disturbed the equilibrium, and changed the personality of the manifestation. Think about all I have told you, sons. Come to me when you will."

* * *

"Think of all I have told you," repeated Tom, as we walked homeward. "Such wisdom is beyond my thought. How narrow is the theology to which we have listened all



"Strove to keep the boat near the center of the well"

"That is wise" he said, releasing our hands. "Come to me whenever you are moved to do so, and seek frequent interviews with Madu Rea, who can expound these subjects clearly. The dear Madu," he smiled, "she walketh with her hand resting in the Father's."

"One question more, Paerdo, if I may ask it. Why did your Master, Kesua, not marry?"

He looked at us intently for a moment, then replied: "In Kesua were blended, in harmonious proportion, every masculine and feminine attribute to be found in a perfect

our life; how inadequate it has been to produce such conditions as exist here."

"True, comrade, but there is something beyond even the utterances of Paerdo. Something we do not understand. There is a great mystery about these people that eludes us."

"Do you think they know it?"

"Frankly, Tom, aside from Paerdo, the Madu, and probably Oron, I don't believe they do. They have known no other life, as we knew no other until we came here."

"Feen, what do you suppose Paerdo meant when he said that Zenia would help

me? She is a 'fullhand,' but how can she aid me on such a path?"

"Dear boy, you have seen but one side of Zenia."

"True enough, Hat, I shall turn her over—in my mind. Do you know, once when your humble servant was having a comfortable chat with Mrs. Durand—not by the taffrail—she said that the girl I would love was far above me. That fits Zoe, exactly—but how did she know it?"

"As she knew some other things, I think. Mrs. Durand was too well-bred to make invidious comparisons; but she seems to have hit the mark. The madam has not engaged my thoughts much of late."

"Nor anyone else, old man, save the future Feankaena."

* * *

In dreamland I stood at the railway station in my old home and heard the engine announce its coming. One short sharp call for the brakes—and I opened my eyes to see Tom, in his bath robe, standing in my doorway, whistling and laughing.

"Gad! I thought that last blast would bring you," he shouted. "But how a man can sleep like a tortoise, within a few hours of his wedding, beats me."

"The thought is so restful," I explained.

"Oh! is it? If so, I pity you. Scott! I have been up an hour. The fact is, I am so crowded with happiness sleep had to vacate. Happy as a lord! I will lay a sovereign—who does that remind you of, Fean? Jove! I would give five yellow boys to have Sam Mathers with us today. I reckon you wouldn't mind chipping in."

"Assuredly not, dear boy; but you were saying—"

"Oh, yes—I will bet that Audofa will be the first to meet us. Why, Hat, but for the dear old fellow there wouldn't be any wedding. God bless him! Well, scatter now; we want to get down to Hokenda early. Here goes for a cold plunge!"

My comrade would have won his wager.

"Ahoy, old shipmates!" shouted Audofa, as we stepped from the car. "This is a gladsome day. Everyone is full of joy. Ternal and the girls and Motoo are here. Everything is arranged. Your nuptials are to open the festival of the manifestation. The ceremony will be at the Rose Pavilion; later you are to have a reception at the lake.

Do you recall our first visit to that place, Feanka?"

"Well, indeed, Audofa."

"After the repast, there are to be merry-makings and music. Then, my home will be gladdened by you and your island bride, Tooma; while Feanka and the little girl with the locket, will add joy to the hearts of Oron and his family."

"Hey, shipmate," exclaimed Tom, "it's almost as hard to breathe as it was in the rift."

"Remember the spring and the star, Tooma."

"Indeed I do. Ah! but for you, old friend."

"Not to me the glory, messmate."

"Audofa," I said, "I think we have found ourselves at last."

"Oh, yes, Feanka, the pictures no longer fade. All is bright reality. We have passed through the second birth."

All the latent enthusiasm in the Hungarian was manifested on this occasion. Someone called him.

"Fean," whispered Tom, "think of the man who came to Elgrane."

"Comrades," said Audofa, beaming, "Oron wishes you, as soon as may be."

* * *

Oron's face was that of the schoolboy when he grasps the longed-for prize. "Come here," he said, "I have something to show you." He parted the portieres just enough to disclose the room beyond. On the sofa opposite, sat the Madu Rea, richly robed, and on either side, clad in glistening white, sat Fulma and Zenia. "And now, a short sojourn in the library," he went on, "and then—the culmination of our hopes."

In the room so dear to my memory sat Loreda and Soratiya with other of the brotherhood. A few moments of social interchange, and Oron rose. "My sons," he said, "we wish to give you some mark of our esteem and affection before you wed our daughters. It is the desire of the nation that you become our adopted children. I therefore, proclaim you Zoeians of the first degree."

All rose. I nodded to Tom.

"Brothers," he said, "the honor you have conferred upon us is beyond my ability fittingly to acknowledge. The joy we felt when we passed from the shadow of death

into the light of this blessed land, grows dim in the greater joy of knowing that you deem us worthy of what you have bestowed. It is our highest realization of life to be with you. It will be with profound regret that we say farewell—a regret tempered by the hope that we may return."

"Honored Brethren of the College," I followed, "We came from darkness into light. We have drawn near to that spiritual illumination so eagerly sought, so rarely attained. We have learned that the kingdom of heaven has a tangible existence on earth. We heartily thank you for all you have done for us since, weary wanderers, we fell at your gates. May we prove worthy recipients of your high regard."

"Well said, well said, my sons," approved Oron. "We are all of one accord. Now, let us join those who await us, and go to fairer scenes."

It was a picturesque group that walked to the pavilion. Oron and others from the College, in their robes of office—the stately Madu Rea, with Fulma and Zenia—Oronena and her daughters—Soratiya, our old preceptor, with Tom and me—Geando and Relso.

Music and the murmur of happy voices came to us as we drew near. A throng of delighted Zoeians had gathered to bid us welcome.

Nature had donned a special robe that bright day. No nuptial canopy was ever more beautiful than the Rose Pavilion. Even the skillful hands of the Oronena could add but little to nature's lavish adornment. From its wealth of beauty went forth a fragrant welcome to the fair women whom Oron consigned to our care for life.

"My dear children," he said, as we rose from the ceremony, "on my own behalf, and for my people, I wish you every joy of earth life, and the greater bliss beyond."

"Amen!"

I knew the voice. Turning, I grasped Audofa's hand. A clear, glad note rang out. It was Moto's.

Foremost among those who pressed close to us were the Oronena and her daughters, Elida, Retra and Termal.

"Dear ones," said Elida, "you have but crossed the threshold of happiness."

"My sisters," said the Oronena, clasping the blushing girls, "you and your chosen ones have entered into your inheritance."

"Zenia," asked Tesia, "how about the speaker now? That question is mine, dearest," she added, laughing.

"You were apt pupils, my brother Zoeians," said the genial Soratiya, "but I did not expect such progress. Some soft, sweet influence has been at work."

"Is the manifestation dim today, Feanka?" asked Loreda, archly. "May it shine in you, my Zoeian brother, as it glows, clear and steady in your beautiful wife."

"No need for the telescope, to see twin stars today, my Zenia," said Beoteen.

"Beoteen, you are just lovely!"

"Indeed, my daughter? Then I shine by reflected light. And will you now visit the moon, my Zoeian brother?" he asked of Tom.

"No, Director; my thoughts are centered on another satellite."

"A fair one, Tooma. One in which there is much to be discovered."

"Besides, I must locate that boat," added Tom.

"Ah! that boat," laughed Beoteen. "It was full of suggestions."

Termal had been a silent, but appreciative listener.

"I think it is my turn now," he said, "but I am going to keep the honey until I have you all at home. However, I must say just this—no handsomer girls ever wed braver men."

* * *

The well-arranged program was given in full. It was a superb interweaving of precious words, music, colors, happy voices, flowers and moonlight. The last fell softly on four loving earth children clustered close on the veranda of Oron's home. With rare thoughtfulness, we were left to ourselves. We had a merry dance up and down the broad floor to the music of rustling leaves and singing fountains. Tom halted, his face aglow. "Now, for the Hotel Hungaria!" he cried. "Come part way with us, old comrade and Feankaena. Come as far as the banyan tree."

With songs and jests we strolled to the old tree.

"Oh, is there a fairer heaven than this?" cried Tom.

"Do you wish for one, Tooma?" asked Zenia.

"Why, no—that is—er—unless—"

"It is within your reach," she assisted.
"Well, we must say good-night."

"Yes," I assented. "And thus we part."

"But not without hope," came from Tom, waving his hand.

My little queen and I were alone in the moonlight.

"Sweetest and dearest of all possible possessions," I said, clasping her in my arms, "how would you have answered Tooma's question?"

"Oh, my heart's treasure," she murmured, as the golden waves rippled across my breast, "I don't know—I do not want any greater heaven."

CHAPTER XIX

Somewhere, in undiscovered realms, there may be beings more richly endowed and in closer relation to their Lord—better types, it may be, of that honor, rectitude and brotherly love so vividly portrayed, during the "Festival of the Manifestation" by these Zoeians on their sky island; when all—in their business councils, their worship and their pastimes—seemed actuated by one thought only: the welfare of the commonwealth. To me, it appears impossible!

The Festival past, Oron said to us: "Take a run up the country among the flowers and butterflies; then come back and share your happiness with us all." And so we did. For the next two weeks we roamed in the sunlight, fed on ambrosial food, and drank of the loving cup. Then we settled down to an idyllic home life, Tom and Zenia at Huan, Fulma and I at Termal's. Tom's statement that "we lived together," was near the truth; as rarely a day passed that we did not meet at one place or the other.

In the bosom of this winsome people we were lovingly cherished for seven halcyon years. It was a continuous scene of enchantment, a perpetual realization of the poet's dream. Often, as I returned from the peerless brotherhood of the college to the lips and arms of my precious Fulma, and heard Termal's glad welcome, I have stood bewildered, and asked myself, "where and with whom am I?"

The answer came years after, and on foreign shores.

As we sat at breakfast one morning, about two years after the dawn of our charmed life, I heard my name called in rapid succession.

"Oh, dear heart, it is Tooma," said Fulma.

"Well, old boy, what is it?" I asked.

"Oh, Fean, Fean, Zoesy has the loveliest wild flower you ever saw. It is so rare and fragrant, she wants you and Fulma and Termal and Motoo and—er—everybody to see it. Come at once."

"All right, dear boy," I laughed, "keep it fresh until we come."

"Why, dearest," said Fulma, "Where can they have been so early? What can they have found?"

"Sweetheart," I said, gazing into her inquiring eyes, "do you not know what he means?"

"Why, no—Oh! my darling, let us go right away."

"Go where? What's the matter?" asked Termal, coming in.

I told him.

"Oh, is it possible?" he cried, seizing the duplex *kanjool*.

"Beooten!"—"Yes, it is I, Termal."

"No, something better. A new star has appeared in our constellation."—"Thank you for all."—"Oh! first magnitude, of course."—"Buela?"—"Certainly, excellent, but I don't know yet."—"Oh! yes, going immediately."—"So do I. The name is all right, if it only fits, will let you know. Don't expect me today."

"Let us be off at once," he said, dropping the tubes. "Motoo, my boy, take the package to the observatory and see to things. We are all going to Huan for the day. And Motoo—wait a moment outside."

I suspected why a joyous, ringing laugh came to us.

"Goodness, folks!" cried Tom, rushing to meet us. "Gypsies have been here. No, not exactly gypsies, but—er—something of the sort; may be after all it was a bird, anyway, a kid was brought here, and there was considerable detail to the transaction and—"

"And how is Zenia?" demanded Termal.

"Oh, just blooming! Termal, do you know that girl is everlastingly the sweetest—why, I haven't asked you in! Well—I am rattled."

"And the flower?" I asked.

"What flower, Fean? Oh, yes, I remember. Wait 'til you see it. It's fresh now, but they said it wouldn't do to keep it in water any longer. Now, walk right this

way. Manager? Why, I own the whole thing."

Thus we entered the sacred chamber, and beheld what has claimed the talent of the world's greatest artists.

* * *

If any added link were needed to bind us four together, it came in the tender plant from some other fair garden of the Lord's.

The beautiful Buella attracted many worshippers, among them the wise men, who came to pay homage.

"She is goodly," Oron would often say. "She will bring health to other nations."

Sometimes Tom would not come to Bacca for days. "You see," he explained, "the little thing requires careful nursing."

"Do you have to sit up nights?" I once asked.

"Not a night, Fean, but the flower needs water early in the morning."

Dear comrade! I might have envied him had not my own cup been full.

And so the child grew in grace and in favor with the people, and for the next three years our journey on life's delectable river was filled with the fragrance of her presence.

* * *

One day, nearly six months before the close of the fifth year of our marriage, Oron called me. "I want you and Termal to come to me tonight," he said. "Audofa, Tooma, and others will be here."

The message, though brief, filled me with an indescribable feeling. I divined its import; and the more I reflected, the sadder, more dejected, and unhappy I became.

When we were in conclave, Oron said, with a soberness I had never before seen: "My brothers, on the third day of the seventh month from now at half past the thirteenth hour, the next recession will occur. We know, only too well, what will then happen. However, it will be in accord with the divine will. There are duties incumbent on our adopted sons, and there is a mission for our College we would fain have them execute. We must meet the event cheerfully and with forethought. Hence, I have called you that we may devise ways and have time to perfect them. Termal, it was by Audofa's guidance our sons came to us; it must be by yours that they go out. The Zoeian protection must abide with them. How large is the passage at the mouth of the shaft? What

is the condition of the canyon; and about what is its length?"

"The canyon is some ten miles in length," replied Termal. "There is a small stream passing through it that occasionally falls over high ledges. If one keeps close to the water, the way, though rough, is fairly good except where the wall overhangs and at the ledges, which are steep. The opening at the mouth of the shaft is very narrow. It was with great effort I got my boat through."

"Is the narrowing of the canyon close to the opening?" asked Selson, the chief engineer.

"Very close, probably not more than six feet from the table-rock."

"What is your opinion, Selson?" asked Oron.

"I see no insuperable obstacles," he said. "The path can be rendered less rough and the overhanging rock removed. We can skirt the ledges or cut steps down their face. At the terminal, the opening can be enlarged to any required size. An exploration will be necessary. No one so fit to lead as you, Termal."

"Perhaps not," he said. "Certainly no one more willing."

"I am moved to be one of the party," said Audofa. "It would recall old experiences."

"Pleasant ones?" asked Selson.

"Aye, in their associations, blessed ones."

"Is there much hot vapor in the pass?" asked Roscu, the other engineer.

"It is not unbearable," said Termal. "The bulk of it passes up the longer and higher rift our brothers came through."

"So far, all is well," said Oron, crossing the room. "How high is the entrance to the mountain on the eastern shore?"

"I should say about twenty feet," Termal replied.

"In that case a power boat might be used," asserted Oron. "One could be built of *zeleen* (a metal lighter than aluminum) Four men could carry it. It could be triple charged and supplied with extra power-cases so constructed as to retain their force indefinitely. How is the country on the other shore?"

"My brothers and I think that the lake is mostly surrounded by a morass. On my return I followed a stream running through this marsh to a waterfall, down which I

worked my way to a broad shelf near the water's edge. I shall never forget my joy at seeing two tree trunks and a tangled mass of tough vines wedged fast on this shelf. Obviously the lake was still falling. I worked, with the energy born of urgent need, to build a float and get it to the water. How I succeeded, the Father only knows—but I did; and, on this rude structure, crossed the hot sea with my—with Fulma." ("Heavens!" exclaimed Tom.) "Pardon me, Oron, I have not answered your question in full."

"Little wonder, Termal. You will be a safe guide for our children."

"No, I never told you," he said, shaking his head. "It makes me shudder when I think about it. I struck the stream at a right angle to its course; consequently, I do not know its origin. I believe, however, it is the one I went out on. In that case, the lake must, at the time, have risen above the edge of the fall. If so, a power-boat could go through. There are places where cutting-sledges would be needed. Beyond the marsh is a rolling country for a long distance."

"Let us partake while we further discuss our plans," urged Oron. "I regret that Jando is not here. He is a master of invention. However, we will have him construct a boat with wheels adapted to land travel. What is your opinion, Selson?"

"Undoubtedly it can be done," the engineer replied. "Wheels can be made of the same metal as the boat, with a thin flat double-hardened steel tire."

"Exactly," approved Oron. "We will leave all in the hands of Selson, Roscu and Termal. How does it impress you, Feanka?"

"By your methods," I answered, "the greater obstacles will be overcome. I have no doubt of the result."

"And you, Tooma?"

"I think," said Tom gravely, "the greater obstacle remains."

"I understand you, my son," said Oron, with sympathy. "That, too, must receive our thought."

* * *

The preparations for our departure went steadily forward. The exploring party brought back the remnants of our guns and fragments of other articles we had discarded nearly seven years before. They were placed

in the National Museum, a spot Fulma and I loved to frequent.

It was a repository for articles pertaining to this nation's history, gathered from a remote past. Scarcely an invention of value, to be seen elsewhere, that was not represented in this collection.

It impressed one strangely to look at articles used by intelligent human beings ages before the builders of the pyramids were born or the foundations of Damascus were laid.

At our last visit Fulma called my attention to three articles—alike, but differing in color—carefully preserved. On close examination, I burst out laughing, greatly to her surprise. They were our former beards, contributed by a man-in-gray.

I met Audofa soon after his return. "Feanka," he said, "I again stood on that table-rock; looked into the black water, and at the jagged dome. All is unchanged. I shall stand there once more, twice, I hope—then I never wish to see the place again. Its gloom and wildness oppress me."

"How will the girls stand it?" I asked.

"Bravely," he said, cheerily. "The sunlight of yours and Tooma's love will illuminate the dark hour and the darker passage."

"And the old rope?" I further asked.

"A piece of it was there, just as I tied it round the rock; but the old timbers that bore us from death to life are gone."

"Audofa," I said, "it will seem strange to go without you."

"It may be," he said wistfully, "but a stronger and wiser man will be with you. Besides, you have learned to place your trust in that source to which I sometimes pointed you."

I felt the tears spring to my eyes. "Dear old friend," I said, "no one can do for me what you have done, no one can be to me what you have been."

He shook his head. A shade of sadness mantled his face.

"Audofa," I said, "how seemingly small things sometimes produce great results. Had you not lost your old worn Bible in the morass, this expedition would not have been undertaken."

"You would not have thought of it, Feanka?"

"Yes, but I should not have gone. Why should I go?"

"True, my shipmate—why should you? As the Oronena said at your wedding, 'you have entered into your inheritance.' But for Oron's eager desire to possess our sacred books, I should not counsel your going. For some strange reason, I have never been able to fully recall the passage in our Bible which seems to confirm the tradition concerning this folk."

"Are your views regarding them clearer than before?" I asked.

"Yes, but not enough so, as yet, to put into words. Feanka, this much I know: The 'green pastures' and 'still waters' are here. Nowhere can a greater heaven be found, except in our complete realization of our oneness with the Father. Many of our Zoeian brothers have attained this. The others are nearing the celestial goal."

* * *

Time flew on. We were within ten days of the hour when we were to leave this paradise and again face the turbulent conditions of the lower world. Every preparation had been completed, even to the strong garments and stout footwear. A band of athletic young men had been selected to go with us through the pass. Oron, Lored, Soratiya and Audofa were also to accompany us.

Termal was restless, anxious to be off; Zenia calm and confident; Fulma brave and trusting; Moto alternating between joy and sorrow, but Tom was miserable. All his gaiety had fled. The reason why? He must choose between leaving his little idolized Buella in safety—with no sight of her dear face, no sound of her sweet, ringing voice for seven years—or expose her to all the dangers of the perilous journey. A day or so later he came to me for counsel.

"Hat, I lack neither physical nor moral courage," he said, "but, by Jove! I don't know what to do about my pet lamb."

"Well, dear boy, you must decide quickly. Will you take my advice?"

"Of course, old man. It has never failed me."

"Then leave all to Zenia, and accept her decision. Whatever it is, it will be for the best."

"I ought to have known that, Fean, without coming to you."

"So you ought, my comrade. Now, go and act accordingly."

That night he called me. "It's all right, my boy, Zene has decided."

"How?"

"The lamb is to stay here."

Termal had decided that we must enter the pass at eight o'clock, morning. Our last evening was spent with the Madu Rea. It was a conference never to be forgotten; one that brought consolation to Zenia and hope to all.

* * *

At the chasm a large number, with Oronena and her young people, awaited our coming. They parted in lines, and as we passed down to join Termal and the vanguard, with the boat and lights, at the mouth of the rift, they gave us good-bye and, with it, something of themselves that was very sustaining.

Termal gave the word. The *syunas* glowed. As we entered the canyon the rich voices of the Zoeians rose in song. The sound waves came to us down the pass, fainter, lower, whispering, then once more clear. Again, departing, dying, slowly passing, as though they fain would linger with us.

* * *

The excellent work of the engineers made our progress comparatively easy, and we went on famously until, at the foot of a high ledge, Termal ordered a halt. "We are doing well," he said, "better than I expected. The rift is strangely free from vapor today. Wohares, daughter?"

"As well as one can in such a dismal place," replied Zenia. "I am glad Buella is not here. However, it is all for the best. We must meet whatever is inevitable with resignation. We cannot change the conditions."

"There you go again, Zene," cried Tom; "you are always saying such sort of things."

"And she is right," said Lored, "but you do not understand her, Tooma. All incidents in our lives are in accord with the immutable law of cause and effect. A far-reaching law, my brother, and in its personal application, one difficult to comprehend. Especially is it so, when we realize that there can be but one cause in the universe."

"That's about as deep as the shaft ahead, Lored," said Tom; "but I wouldn't mind being saturated with your thought just now, for it certainly is comforting."

"And how is Blue Eyes?" asked Termal.

"Oh, I am contented, Padu," declared Fulma.

"Do you know the meaning of contentment in all its fulness, my daughter?" asked Soratiya.

"I think so, Soratiya."

"Then thou standest close to the throne, my child."

"Aye, and another, as well," said Audofa, "though it may not be realized."

Oron smiled approval. "Feanka," he said, "in the boat are concentrated provisions and a case of wine. In the forward compartment are four *kanjoots*, four *synnas*, and two of our finest timepieces. Each of these is triple-charged, and will last for a long period. The dials should record our time accurately for six months. I would advise you, upon arrival in your country, to procure one or more of your best time instruments and have them adjusted to our standard. In the same compartment are two pouches containing diamonds and other fine gems. From what I have learned through Audofa, they possess a value, in other lands, of which we know nothing. They will, I think, be ample for all your requirements."

I started to make reply, but he checked me. "You are our children," he said, lovingly.

Another hour and Termal again halted. "We are not far from the shaft," he said; "here are some places where much caution will be necessary as the existing conditions could not well be changed. Oron, come close behind me, let each follow the other as near as may be."

Half a mile further on Termal stopped abruptly. "It is just before us," he said. "Wait!"

He went forward and raised his arm. An intense light shot across the Stygian lake and danced on the mist waves.

"Oh! what is it?" exclaimed Zenia.

"Why, it is the shaft, my daughter, down which we must descend."

I turned. Beneath an overhanging rock in the glow of the *synna*, the dark walls and darker shadows beyond, stood Zenia, a slight pallor on her face, serene and beautiful.

We took the time. A brief period longer, and then—what? The boat carriers passed through the opening to the table-rock, and slid the apparently frail craft into the water. A hollow, mocking sound reverberated from the dome. The mooring line was made fast. All was in readiness.

Audofa turned a *synna*. "Oron," he said, "here is the entrance to the other rift. Here is where we went in. Ah! to what did it lead for us all? Why, what is this?" he said, stooping.

"Another relic for the museum; part of a revolver, Feanka."

"Termal," I asked, nervously, "how about the others?"

"All in the bunkers," he said calmly.

Ordinarily, Tom would have made some characteristic remark. His silence caused me anxiety. Oron glanced at the dial—just as he did in the Rose Pavilion when we first sat there. How different the scene—how unlike the conditions.

"Come, my children," he said, "and receive our parting benediction. We may not longer delay."

Hands rested gently on us as we knelt on the rock. Then each of the brotherhood kissed us. Tom and I wound our arms around our old comrade.

"A parting word for you, Termal," said Oron smiling. "The bar to your progression has been removed."

"Oh! Oron, my dear Oron!"

"Not now, not now, my son, It may be when we meet again."

Vainly trying to conceal his emotion, Termal called:

"Come, Tooma, you first—now, Zenia—Motoo—Fulma—Feanka."

Oron grasped my hands as I stepped into the boat. "Moto," I said, "be ready to get us away from the rock when I haul in the line. Someone must cast off."

Audofa released the rope. "I will stand by," he said.

"What of the hour?" I asked.

"The twenty-ninth past the thirteenth hour," replied Oron.

Termal waved his hands. "May our Sovereign Lord have you and us in his keeping now and forever!" he cried. "Let go, Audofa! We are going."

"*Yolo—yolo—Subaketa yune*" we all shouted.

The beautiful adieu came back from the group on the rock as we slowly settled away.

"Jove!" cried Tom. "We are off on schedule time."

I hailed his words with joy—he was himself again.

Zenia's white scarf waved a last farewell

until the vapor wreaths veiled eager faces from our view. But the *syuna* glowed through the mist like an overseeing eye, and Oron's voice, faint but clear, came to us through the deepening gloom, in words of cheer.

Fainter and less definite the voice—dimmer and more indistinct the *syuna*. We were alone.

Once I saw Zenia spring up, gaze wildly round the shaft, and again, throw herself into her husband's arms.

"Oh, Tooma," she moaned, "whither are we going?"

And my comrade gently comforted her.

"Oh, Tooma, my darling," she cried, "why did we? Why did we—"

I lost her last words, for Tom had closed her lips.

Though Termal had not spoken, I knew that the vapor was rapidly growing denser, the air becoming more stifling. The girls suddenly coughed.

"What is it, dear heart?" I asked.

"I—don't know, dearest," she said, drawing away from me. "I have such a strange choking sensation. It seems so hot here."

Zenia had released her clasp from Tom's neck and sat staring vaguely at him as she gave monosyllabic replies to his eager questions. I glanced at Termal and Moto. The moisture was dripping from their faces.

"I expected it," he said. "The lower we descend, the less endurable it will become. Similar conditions existed when I went down before. It is somewhat different going up. I have prepared for it in a way. In the boat is a case of *hanya* (oxygen), but we must not use it until forced to, and then with great care, as the supply will soon be exhausted. How goes the time?"

"The twentieth hour."

"The twentieth?" he said thoughtfully. "We shall be, at least, an hour and a half longer in this horrible pit. Watch the girls' lips and eyes continually. Better have the pipes in readiness."

"Tom, do you understand?" I asked.

"Yes," he replied, huskily. "Our old experience, Fean. God save us from worse."

I looked at Moto, and recalled an expression I had, once before, seen in his eyes. The poor fellow was fighting against the existing condition. Fulma became extremely

restless, and loosened the scarf at her throat.

"Ah, beloved," she cried, half rising, "I can't endure it!" I detected a faint bluish line on her lips. I told Termal.

"Give her *hanya* at once!" he cried.

"Open the valve cautiously. You will all need it except Zenia. I think she can stand it; I know I can, but it will be troublesome."

After a long inhalation, Fulma smiled at me.

"Do you feel better, sweetheart?"

She nodded assent.

The old sensations in the death-trap were stealing over me, bravely as I fought them. I called to Termal.

"Take the gas quick, Feanka!" he exclaimed.

I used the pipe and passed it to Zenia, who was holding Tom's head in her lap. He, too, had succumbed.

"The shaft is widening," said Termal.

"I think we are nearly down. Ha, Motoo, my boy, you are stricken. Breathe the stuff and lie on your face. Be sure to shut the valve! I can manage the boat now—I can hold her—"

"Ah, Tooma!" shrieked Zenia. "Speak to me! It is Zoesy, dearest! Your own little Zoesy."

There was no response.

"Give him gas!" shouted Termal. "Someone give it to him! You, Feanka."

"I can't, my brain reels. I should pitch headlong did I move. Besides, Fulma is sleeping."

"Sleeping?" he cried. And with one stride he was beside her.

"Merciful Father!" he exclaimed. "She is unconscious. I must make quick work with all or—"

I saw him reach for the pipes. I heard a frantic, despairing cry and the words "there is no more, the valve is open." I saw two figures, far away, doing something quickly, I saw them coming to me, and I tried to call, as I gasped and writhed in the throes of suffocation, tried to put out my hand, until a black pall enshrouded me. . . .

Then came a sense of coolness on my face, and of a light other than the *syuna*'s. I opened my eyes to see Zenia bending over Fulma, while Termal ministered to Tom and Moto. The light and air were coming through the water-gate on the western shore.

(To be continued)

The Easter Lilies

"Dear Lord," the Angels cried, "untouched of sin
Around Thy throne we cluster.
Behold we toil not neither do we spin
But we have light and luster:

"Let us perform some service sweet and fair;
Stewards of joy and beauty
Give us to breathe our glory on the air,
Give us some fragrant duty!"

Then lo, the Master smiled and thus He spake:
"The earth is dark with terror;
The hills and valleys with dread tempest shake;
Death reigns with grief and error;

"Go forth ye radiant things of scent and bloom
Who know not toil nor spinning—
Brighten with life My risen Son's cleft tomb,
The Easter triumph winning!"

And so with purity they came to earth
Within His tomb to cluster—
The lilies of God of heavenly birth
Giving their light and luster.

Edward Wilbur Mason

ON THE NEW ENGLAND FARMS

ADDRESS BEFORE BOSTON CHAMBER OF COMMERCE
BY DR. G. M. TWITCHELL, AUBURN, MAINE]

THE influence New England has exerted in every field of activity in the past has been due to the great men grown upon her rugged hills. Uncle Solon Chase, the sage of Maine, declared not long ago that "the grass would grow in the city street if it were not for the tramp of the cowhide boots in the barnyard," and Secretary Root recognized the same great lesson when he declared that "there never was and never could be a great nation produced on paving stones."

A peculiar situation confronts New England agriculturists, whose farms, having enriched with some of their best blood the great producing states of the West until a conscious loss was felt, now face a movement from West to East resulting from the swelling tide of population. Within the memory of some present the population of this country has jumped from thirty millions, at the close of the Civil War, to practically one hundred millions today. Under a like ratio of increase the next century will give us twelve hundred million souls to feed. Already ranches and prairie farms are being divided and sub-divided and the inevitable result is following, seen in the reduction of herds and flocks, and acres in grain, and the forced introduction of diversified agriculture. The era of low prices for farm products has passed never to return, and New England feels the thrill of a new life as the better appreciation of its possibilities grows upon the rural home dweller. We thrive only under pressure and it may be fortunate that today we face that serious problem, the solution of which is to determine the permanence of our peculiar form of government, when the present standards of agricultural work begin to fail to supply the incessant demands of a hungry people.

Adding from two to two and one-half millions yearly to our feeding population, every business man becomes intensely interested in the problem of making food products. The security of this nation rests upon its ability to produce its own food supply. The

stability of our institutions will be shaken when we pass the limit of home production.

Mr. J. J. Hill voiced a sound principle in his declaration, "never has enhanced cost of living, when due to agricultural decline, failed to result in national disaster." The problem facing this nation today is not that of exporting surplus farm products, but of increased production of the same upon the home farms for consumption by our own inhabitants. The quality of rural life, as well as volume and quality of farm products, are important factors in national prosperity.

Two propositions present themselves: "What is New England good for agriculturally, and how can we approach nearer to the maximum in production?" Wisely has it been ordained that no one section of the country should hold a monopoly in adaptability to the necessities of its population. New England, as a whole, is peculiarly fitted, through its granite soil, its broken land, its abundance of water springs and its naturally cooler climate, to the production of more of the staple products of the farm than almost any other like section.

Not overlooking the value of specialized effort seen in Essex or Worcester and other counties, I would mention crops best suited to the average farmer remote from market. New England is peculiarly adapted to stock husbandry, including the dairy, corn and grain, potatoes and fruit; nowhere in this country can a higher per cent. of profit be realized by the individual producer along these lines than right here in good old New England. What is demanded is a constant readjustment to a continually changing condition of life. For want of this we read failure in far too many cases, yet it is in the man, not in the land.

No man who attempts pork production on forage crops, such as rye, barley and clover, growing roots, pumpkins and corn, to finish his work, need fear an empty pocket-book. The question is not the market price of grain, but the market price for a sweet,

juicy and healthy product made under sanitary conditions out of the natural crops of the farm.

For twenty-eight years there has been a steady advance in the average yearly price realized by the progressive poultry man of New England, and if the duties be exacting, the returns are ample and encouraging for everyone who can put enthusiasm into the work and who will observe the conditions.

When as high an estimate is put upon a sheep as the worthless cur, and protection is insured to an important industry, we shall again see the growth of a branch of stock-breeding absolutely necessary for the improvement of our pastures and enriching of our orchards.

As ranches are broken up and prices for beef increase, the growing of the beef type of animal is sure to claim renewed attention. During all the years of low prices those men in the several New England states who have clung to the goad stick and steers have never wanted for substantial returns or increasing fertility. We are learning that profit comes from specialized effort whether with man or animal. Greatest of all in this line of operations must be reckoned the dairy cow, and associated work is uncovering some profound lessons, not to be realized by those who have never attempted a thorough and consecutive test. "Guess so" has given way to exact knowledge, and profits are increasing. The cow test associations of Maine are doing more to eliminate unprofitable animals and insure thorough methods of care and feeding than anything ever attempted in the state. They are teaching men the importance of giving every animal a fair chance in the world. One man found by the consecutive test that his pet cow made butter at a cost of forty-two cents per pound, while the one he was most anxious to sell produced at a cost of seventeen cents. The yearly record opened his eyes. One herd of seven in Oxford County gave a year's profit, respectively, of \$41.66, \$53.64, \$45.56, \$45.70, \$34.98, \$9.90 (only three months in the test before being sold), and \$19.56 (nine months in the test). This man found which cows to sell and gained thereby. In a Wisconsin herd the five poorest cows ate feed worth \$140 and returned \$143 in product, while the five best ate feed worth \$204 and returned \$395, or forty dollars per head.

By applying exact business methods, farmers are finding that boarders in the herd do not pay, that the individual animal is to be considered, and that there is sure profit in dairying when every cow contributes to the balance in the hands of the farmer.

Maine last year produced thirty million bushels of potatoes, and those who grow this crop understandingly are not satisfied with less than three hundred bushels per acre. The older portions of Maine have caught the enthusiasm from Aroostook and are finding the potato fields a sure path to a bigger, busier and better agriculture. New England can produce at this rate, and the potatoes are but an incident, for the man who reaches this level has his farm in prime condition for succeeding grain and grass crops, and the nature of this crop is such that a short term rotation is forced, which adds to the yearly income of the grower. If the waking has been slow, the infection is spreading and in every nook and corner of the State of Maine, new life is being infused, and what is being done in Maine is applicable to every New England State. It requires only the wise, fostering care of the organized state department, of each state, to work a revolution in the next decade, as surely as spring will follow winter.

The awakening is showing itself in a decidedly increased attention to the one crop most neglected in former years—the corn. The magnificent work done by Mr. Brewer of Connecticut, in capturing highest honors at the National Corn Show, for best yield per acre last year, has stirred every part of New England. I find that this year, despite weather conditions, rain, drought, frosts and continued cold weather, a fair per cent. growing sweet corn for the factory has reached a yield of cut corn returning them \$100 per acre, at two cents per pound. Experimental work to establish new varieties, increase productiveness and insure maturity is stimulating an interest which is a guarantee of greater acreage and a bigger yield of matured corn hereafter.

The orchards, apple, plum and peach, show positive proofs of genuine revival. Hitherto, apples have, in the great bulk of cases, simply grown themselves. Today the question constantly asked is, how can the orchard and its product be improved, and Oregon apples are forcing us to adopt Oregon

methods. The superiority of New England fruit is recognized, but business methods in sorting, packing and branding, as well as in growing, are essential.

New England soil is not worn out. New England farms are not deserted. New England agriculture is not declining. These facts can be substantiated and must be accepted. One of the heaviest burdens put upon the industry has been the cry of deserted farms and a decaying industry. Another has been the over-zealous attempts of wealthy business men to run a farm, or establish a herd, and after spending thousands recklessly without any system or continuity of effort, have a grand dispersal sale and publish the fact of failure.

Would-be reformers have attempted much while knowing nothing, have cried, "back to the farm," not realizing that no man can succeed who has not been trained for the work, and is not a student of the problems and a thinker as well as worker. With no knowledge of the soil or of crops, the poor from tenement houses cannot be dumped on cheap lands and escape starvation. New England agriculture offers the tired man in office, mill or store the chance to build afresh the tissues of brain and body and opens the door to a limitless field where eyes will become sharpened and ears made acute, where health is certain and where one has but to listen to hear visible and invisible choirs from morning to night. Worn and weary with the countless burdens of a strenuous life, the man or woman from the city may live a free life in God's country, pursuing the one industry which alone can feed an ever-increasing army, provided the demands of a progressive agriculture are met.

The underlying facts prove the truth of word pictures.

An old friend in Aroostook County has just harvested six thousand barrels of potatoes from fifty acres, which sold for a dollar and a half per barrel, and were grown at a total cost of sixty dollars per acre, because of a high state of cultivation and abundance of nitrogen in the soil from clover roots.

A neighbor in Monmouth, in Central Maine, has finished harvesting twenty-one hundred bushels from seven acres on old land. These were grown at a total cost of

eighty dollars per acre, which is the usual allowance in this section.

A Vermont farmer has just sold his one hundred acre orchard for fifty thousand dollars, and the crop since harvested is valued at seventeen thousand dollars.

A neighbor in Monmouth refused nineteen hundred dollars for a three-acre orchard set thirteen years ago. Another would not sell a six-acre orchard set in 1891 for seven thousand dollars, because it is paying better than bank dividends on that amount. Another of four acres could not be bought for five thousand dollars for the same reason. There is an orchard set by an old physician on land for which he paid three dollars per acre, which was sold a few years ago for three thousand dollars and could not be bought today for twice that.

A lot of trees, condemned to be cut down in 1907, were purchased by me, pruned and cleaned up, May, 1908, and fertilized the past season with ten pounds per tree of Fisher formula fertilizer. The great growth of wood, size, strength and vigor of leaves and abundance of fruit buds today, tell the story of radical regeneration. I could not afford to sell these trees for fifty dollars each.

One dairyman in Maine realized from his herd of thirty-six cows last year a net profit of over seventy dollars per head, by supplying cream.

In every state as marked illustrations can be found, for the half has not been told. No investment, properly safeguarded, will return for years a more substantial income than an orchard upon any of our New England hills. No business is more reliable than a dairy farm where the crops are grown in largest measure possible for the stock, and the eye of an intelligent master directs the progress of the herd. Those who are led by a deep-seated love for nature will have no cause for regrets.

The pendulum is swinging toward the fitting of the individual child for a life of service, and the day is not far distant when the question will not be, whether agriculture is a profitable occupation, but how can the other great avenues of industrial life be directed toward this centre, that permanence of free institutions may be strengthened, and a government of the people, by the people, for the people be made a certainty to all coming generations.



WRITTEN contributions for this Department must not exceed five hundred words in length. Anything unusual or of especial interest will be welcome, especially if it has come under the personal notice of contributors or their friends. Snapshots of curious relic, historical places concerning which little is known, or any other pictures of universal interest will also be gladly received. Awards are from \$5 to \$1, according to the merits of the story or photographs published.

HE HEARS THE WEATHER MAN ROASTED

BY CHARLES S. GERLACH

"Funny organization this weather bureau of ours," remarked a member of a group of four in a smoking compartment of an eastbound train from Chicago last fall. "I see it predicts general rains for today"—and he held the paper sideways to dodge the glare of a brilliant Indian summer sun."

"At my home," interjected the third member of the group, "my wife has a standing order with the confectioner to send up ice cream whenever he sees the cold wave flag flying."

The mild-looking man with the twinkling brown eyes said nothing. The party were all strangers to one another. The three who had spoken were on their way to New York.

At Harrisburg the mild man with the brown eyes arose, gathered up his baggage and, bowing to the group, produced three visiting cards. He distributed them and smilingly took an abrupt departure. Then the others looked at the cards. They read: "Willis L. Moore, chief of the weather bureau, Washington, D. C."

* * *

THAT GANDER

BY FRANK MONROE BEVERLY

Reynard is noted for his cunning, crafty qualities, but Gander Jeremiah has outdone him, or at least proven himself his equal.

Gander Jeremiah is a sort of neighborhood fowl, he and his wife going from place to place "boarding among the scholars," though the ownership of him—they—is vested in a Mrs. R., and when they "feather" they go to her to be plucked.

Last autumn Mr. and Mrs. Gander Jeremiah came to our place, since which time they show no tendency to removing themselves. When the time shall come for laying with Mrs. Gander Jeremiah, doubtless they will go to deposit her eggs with Mrs. R.

Now to the point. A few days ago, the pigs were being fed corn in the ear, when Gander Jeremiah seized one—ear, not pig—and started to run away with it, a pig taking after him. He ran and ran, but piggy was a close second. Gander Jeremiah,

seeing that he could not outrun his pursuer, made a dash for a nearby pond—a shallow affair—into which he dropped the ear of corn. The pig not seeing the corn then, forgot all about it, and went back to his fellows. Gander Jeremiah, however, did not forget it, for he would stick his head under the water and nibble at the corn till only the cob was left.

'Rah for Gander Jeremiah and his wife!

* * *

A STRANGE COINCIDENCE

BY MRS. A. E. SIGSBEE

About the time of the World's Fair in Chicago in 1893, a few friends started an effort to bring together a collection of curios, coins, stamps and relics, the sale of which would create a working fund for the National W. C. T. U.

Mrs. Mary A. Livermore contributed a bronze medal struck off for the first sanitary fair held in 1863 in Chicago, to commemorate the great occasion, which has a remarkable coincidence. The head of President Lincoln is on one side; on the other is represented the goods of the sanitary commission for the sick and wounded soldiers which are being unladen at the wharf of a city.

The government permitted the medal to be stamped at the Philadelphia mint. Somehow the die got cracked in the stamping process, and, although a careless observer would not notice it, the crack showed in every one of the beautiful medals. But the most singular thing about it is, that that slight crack shows the track of the bullet sent into the brain of the President by Wilkes Booth as unerringly as if it had been designed for that purpose.

* * *

THE NOVICE'S FIRST GARDEN

BY CHARLES C. MULLIN

The fever of flower planting was in the air and Mr. Butts had caught it. The first symptom he displayed was when he began to observe closely his neighbors' flower plots, and the second, when he silently made up his mind to have a garden of his own.

So, on his first Saturday afternoon's free-

dom from business he staked out, dug and prepared as nice a little plot for a garden in his back yard as any he had seen in the neighborhood. This done, he proceeded to plant the space. He had accomplished, after careful deliberation and precision, the planting of five rows of this, when his wife appeared from her shopping tour.

"How's this for a novice?" he asked, pointing with pride to his achievement.

"What have you planted and where did you get the seeds?" she returned, with a remarkable lack of enthusiasm.

He glanced magnanimously at the three empty seed envelopes in his hand. "According to the names on these envelopes I've put in bachelors' buttons, mignonettes and asters; got the packages off the kitchen shelf."

"Dig your garden right up again. You've planted the baby's glass beads, which I had unstrung and placed in those old seed envelopes for safe keeping!"

* * *

A BEAR AND A RUG

BY MRS. F. J. R.

If you should step into my cosy corner you would say, "Where did you get such a lovely rug?" I will tell you.

We spent last summer far up among the wooded hills, five miles from the nearest town. As my husband was away a great part of the time I was left alone with my five children, the nearest neighbor being nearly a mile away.

One evening seeing a great smoke in the distance, I thought a neighbor's house might be burning and started to run to a ridge a short way from the house to get a good view. I suddenly turned a bend in the path and ran almost on to two of the dearest little brownish-black cubs I ever saw. My first thought was what a great thing it would be to grab one up in my apron and run, but with that thought came a great crashing in the thick brush to the right of me, and with one shriek of horror I fled to the house, grabbed the gun, locked the children in and fled swiftly back. As I rounded the bend in the path that old mother bear rose clumsily up on her hind legs a short

distance ahead of me offering the most splendid target, and bing! with one great gasp her soul passed on to the "Happy Hunting Grounds." As husband says, "What if you had only wounded her?" If I had, well, probably I never would have told this tale; thanks to being a "good shot," I possess one of the finest rugs in the country.

* * *

A HANDWRITING EXPERT

BY ROBERT D. BENEDICT

The master of a vessel in a port in the Gulf of Mexico being in need of money, borrowed it and to secure its repayment executed what is called a bottomry bond, by which it was agreed that if the money was not paid within so many days after the vessel arrived at New York, proceedings might be taken to have the vessel sold and the money paid out of the proceeds. The money was not paid and I was retained to enforce the bond, and began a suit. Someone interested in the vessel appeared in the suit and denied that the bond had been executed by the master, as had been alleged. It became necessary to take the testimony on this point of a sailor whose name was subscribed to the bond as having witnessed its execution. In answer to my questions the sailor said that the captain called him into the vessel's cabin and asked him to be a witness to the bond, and he signed his name to it as a witness; and he spoke of the paper as the bottomry bond. The opposing counsel in a sharp cross-examination asked him how he knew it was a bottomry bond, and the witness answered

that he read enough of it to know what it was. Some other skilful questions brought out the fact that when the sailor came into the cabin the captain was sitting on the other side of a table with the paper before him, and the sailor sat down at the side of the table facing the captain, so that the paper was between them; that the paper was not read to him; that the captain turned over the first leaf of the paper and signed his name at the end of it and told the sailor where to sign his name, which he did and then left the cabin.

My heart sank, for I saw that it was open to the other side to say that the document lay on the table *upside down* to the sailor, and that his statement that he read enough of the document to know it was a bottomry bond was false, because of course, he could not read writing which was upside down, and therefore, his whole evidence should be disbelieved.

The lawyer opposed to me saw the point also. But instead of leaving the matter where it was he concluded to clinch it, and taking the document he laid it down on the table before the witness upside down and said to him, "Let us see you read the paper now." And to my great surprise and relief, the witness read the writing, upside down as it was, with nearly as much fluency as if it had been right side up.

That ended the contest over the execution of the bond.

This sailor's ability to read writing when it was upside down was a curious instance of the many curious things which sailors do to occupy their time during idle watches on long voyages.





THE approach of warm weather brings in its train the close of the Grand Opera season, followed by the closing of many theatres during the summer months. If one would hear popular and classic music in warm weather, he must either rely upon the uncertain vaudeville house or—get a talking machine. If he must have Grand Opera music, the latter offers the only channel.

The talking machine companies make their contracts with the leading grand opera singers of the world so that the best operas may be enjoyed when the regular performances are not in season. "Faust" or "Tosca" floating in the summer air from the clear record will thrill the listener's soul as surely as though he sat in a box seat and saw the performance direct from the stage. The sprightly music of the comic opera, which so often introduces the popular song, is equally delightful.

The plan of the different talking machine companies to feature one or two of these reigning selections makes it possible for the phonograph owner to keep in close touch with the music of the day. "Has Anybody Here Seen Kelly?" the comic song success in "The Jolly Bachelors" appears on each of the May lists.

Raymond Hitchcock, pronounced the "foremost American singing comedian," is the latest acquisition to the Columbia ranks. His introductory song, on a double-disc record, "Wal, I Swan," is of the "rube" variety, in which Hitchcock is at his best. Coupled with it is the sensa-

tional "Vision of Salome" waltz, rendered by Prince's Orchestra.

Few people who have visited the New York Hippodrome will forget its orchestra, under the direction of Manuel Klein, and admirers all over the country—for who hasn't been to New York and heard the Hippodrome orchestra?—will appreciate the "Flower Waltz" taken from Tschai-kowsky's two-act fairy ballet, the "Casse-Noisette."

Several excellent instrumental records are offered—"Child's Festival Gavotte," a graceful light composition played by the Bohemian Orchestra; "Hungarian Lustspiel," a splendid overture by Keler-Bela, played by Lacalle's Orchestra; selections from "The Midnight Sons," Lacalle's Band; "Medley of German Polkas," accordion solo by J. J. Kimmel; and "1863 Medley," a collection of airs that were popular just at the close of the Civil War.

"Mary of Argyle," that beautiful old Scotch ballad, whose popularity never wanes, is sung as a tenor solo by Frederick Gunsten on an indestructible record. Charles K. Harris' "Somewhere" is another melody which promises to live for centuries to come.

A grand opera double-disc record of exceptional note is David Bispham's rendition of "The Pauper's Drive" and "Boat Song," both with orchestra accompaniment. Among the French, Italian and German renditions of Grand Opera many people will welcome Mr. Bispham's work in these numbers, which seems to evidence the adaptation of the English tongue to impressive opera.

The country's ex-President promises to furnish the themes of innumerable "popular songs" from the pen of the ambitious writer of the music of the day. The Victor people have selected perhaps the best of these outbursts up to date in Moran-Helf's "Teddy da Roose," in which a late arrival on American shores explains his views on the African tour. Billie Murray's imitation of the enthusiastic Italian maintains the same cleverness that characterizes all his work.

The Victor Company is to be congratulated upon securing the exclusive contract of Nora Bayes and Jack Norworth, announced this month. Miss Bayes sings "Has Anybody Seen Kelly?" while Mr. Norworth offers his new parody "College Medley," of his own composition. This popular couple, representing as they do both sparkling wit and clever nonsense of the American stage, will be heartily welcomed by a host of Victor owners.

An admirable effort is being made by the Victor Company to rescue from obscurity some of Von Suppe's charming operettas. The "Tantalusquale" is perhaps one of the best overtures ever written, and Arthur Pryor's Band has rendered it in a fitting manner.

People who have the "Hallelujah Chorus," issued in the March list, will want as a companion chorus Dudley Buck's "Festival Te Deum, No. 7," Trinity Choir accompanied by Victor Orchestra. Reproducing mixed voices, called for in work of this kind, is very difficult, and the result has been obtained by a new process to which the Victor Company has devoted much study. The student of Chopin mysteries will hasten to secure "Two Chopin Studies by Backhaus," in G sharp and A minor rendered by the famous German pianist, Wilhelm Backhaus.

Seven red seal records compose the complete Garden scene of "Faust." Each record is sung in French, with the leading Grand Opera stars, Miss Farrar, Mme. Giliert, Caruso and Journet as performers. The recording of this entire scene, one of the most famous in all opera, is a real achievement. Two Martin and two Slezak records make a replete Grand Opera list.

Doubtless "The Man Who Fanned Casey" on the May Edison list, will reign as the evening's entertainment for the youthful baseball enthusiast who has spent his day "fanning" juvenile "Caseys"; and perhaps he will even admit that Digby Bell, who contributes the record, is a "great feller" even though he never played on the "Nash'n'l" or "Merican." Billy Murray is excellent in "He's a College Boy," one of the late successes with another of the late songs, "I'd Like to be the Fellow that Girl is Waiting For," and the standard record, "Come to the Land of Bohemia," Joe Maxwell makes the acquaintance of the Edison circle. His remarkably clear enunciation and impressive tenor are well adapted to recording. "The Suffragette," a new and original absurdity sung by Ada Jones and Len Spencer, arrives at an opportune moment, and should afford no end of amusement in homes where "Votes for Women" figure in conversation.

For public taste which still demands the "coon" song are "Stop That Rag," Collins and Harlan; "Characteristic Negro Medley," Peerless Quartette; and "That Lovin' Rag," Sophie Tucker; besides the really novel "Patrol Comique," which reproduces the procession of the famed "Darktown Musketeers."

An exceptional variety of "folk-lore" music is included in the May list:—"Farintosh," a Scottish dance, and "Jenney Dang the Weaver," a reel, are combined in a violin solo by William Craig; Victor Herbert and his orchestra touch upon the weird melodies of the Hungarian gypsies in "Hungarian Dance—D," while "The Strauss Memories Waltz," includes some of the representative works of that great German composer.

The five Grand Opera records for the month are Puccini's "Tosca—Vissi d'arte," sung in French by Carmen Melis, soprano; Bizet's "Carmen—Habanera," in French by Marguerita Sylva, soprano; Lecocq's "Coeur et la Main—Bolero," in French by Blanche Arral, soprano; Mascagni's "Cavalleria Rusticana—Brindisi," in Italian by Riccardo Martin, tenor; and Thomas' "Mignon—Berceuse," in French by Gustave Huberdeau, baritone.

BATTLEGROUND TO PLAYGROUND

By W. C. JENKINS

THE opening of the new Pennsylvania Railroad tunnel connecting Manhattan and Long Island, New York, marks another important event in the history of one of the most beautiful but for many years neglected islands on the American continent. Lying along the great Atlantic coast, with its heavily wooded hills marking the outline of a great denizen of the deep is Long Island, whose history runs the gamut from battleground to playground.

The island, as its name implies, is a long, narrow island, separated from Manhattan and the Bronx by the East River; from Westchester and Connecticut by the Long Island Sound. Its other boundaries are determined by the Atlantic Ocean. It is about 124 miles long from east to west, and at the widest point, from north to south, about twenty miles. It is believed that its entire easterly extremity, known as Montauk Point, will be utilized sooner or later as the harbor of New York, the freight to be distributed from there throughout the United States by the Pennsylvania and Long Island railroads by means of its connecting railroad. The steamship companies would derive an advantage from this arrangement, because it would shorten the route and running time across the Atlantic Ocean.

Roughly speaking, Long Island may be divided into three main sections: North Shore, the Central Plain and South Shore. Between the first two divisions lies a high ridge of densely wooded hills that still remain in their original state of nature. Separating the central regions from the South Shore is the broad extent of Great South Bay with its fringe of meadows and marsh lands. The soil consists mainly of sandy loam and sand and gravel, which is of particularly desirable character on account of its splendid drainage qualities. All sorts of beauti-

ful trees seem to grow everywhere on the island; a large section is utilized for truck-farming, and some of the products are unsurpassed anywhere.

The history of Long Island may be traced back to 1609, when Henry Hudson discovered the west end of the island at the time he explored New York Bay and the river which has since borne his name. Permanent settlements were commenced on both ends of the island in 1625 by the Dutch and English. These new settlers found the island inhabited by thirteen different tribes of Indians, and so it appears that the locality was at one time claimed by three different powers—the Indians, the English and the Dutch. The first half century's history of the island is a chronicle of constant agitation and contention for superiority. It was an ever-shifting scene of strife and uncertainty, involving changes in rulers, danger of hostilities from the Indians and oppressive acts of administrative officers. These undesirable and perplexing conditions kept the island in constant turmoil.

In 1691 the island came into the possession of Great Britain, and from that date until the disruption of the Colonial government, in May, 1775, the English throne held undisputed control through the governors of New York, of which Long Island was a part. The first battle after the Declaration of Independence, in which General Washington is said to have lost three thousand men in killed, wounded and prisoners, was fought on the island, and is known in history as the "Battle of Long Island."

Until the erection of the Brooklyn Bridge in 1884, the only means of getting to Long Island was by ferry. With the completion of this world-renowned structure began a period of intense activity on the island. Other means of transportation have followed in recent years: the Williamsburg Bridge in 1903; the tunnels

under East River from the battery to Brooklyn connecting up the subways of Manhattan and the Bronx with the Long Island Railroad; the Belmont tunnel, built two years ago from Forty-Second Street, Manhattan, to Long Island City; the Queensboro bridge completed in July, 1909; the Manhattan bridge which was formally opened by Mayor McClellan for vehicle traffic last year and the Pennsylvania tunnels connecting the whole Pennsylvania Railroad system with the Long Island Railroad system—all these connections are incidents of recent history. At the present time there are twenty-eight tracks across the East River connecting Manhattan and Long Island. This is a greater number of tracks than run from Manhattan to the Bronx and a larger number than connect Manhattan with Jersey City.

The present Greater City of New York, with an area of over 209,000 acres and a population of nearly five millions, is the result of a series of absorptions and annexations. Under the Greater New York charter, which became effective January 1, 1898, three cities and a number of outlying towns and villages, which previously had independent political administration, were united into one municipality under the corporate title of the City of New York. The charter of 1898 was revised in 1901. Queens County, which was included in the territory to make up Greater New York, had its seat of government at Long Island City, which first obtained its charter in 1871. After consolidation it became the first Ward of the Borough of Queens.

• Before consolidation and adequate facilities for getting across the river had been established, Long Island acreage had comparatively little value except for farming purposes. Land sold on the basis of what could be extracted from the ground in the way of farm products. Of late years there has been a great influx of the population to Long Island, and today Brooklyn has a larger number of inhabitants than the City of New York had at the time of the opening of the Brooklyn Bridge.

It is apparent to the keen observer that properties on Long Island must

greatly enhance in value in the near future. It is within the memory of most inhabitants of New York when all that territory north of Fifty-ninth Street was almost a barren waste. That district consisted of small villages, such as Yorkville, Greenwich and other towns, but the erection of one building after another brought the population to that section and greatly increased land values. Ten years ago the Bronx consisted of a number of small townships, and people living around Seventieth Street thought the Bronx to be a remote and unimportant spot. These little townships, however, have now grown into each other and land values have tremendously increased within a very few years. History must repeat itself in the same way in all that part of Long Island within a radius of twenty miles of Long Island City.

On Long Island within ten minutes to one hour of the business district of New York City may be found a climate comparing favorably in every essential particular with the most famous health resorts in the world. It has been stated that the two healthiest counties in the United States were Suffolk County, Long Island, and Berkshire County, Massachusetts. The mortality statistics of Long Island establish its claim to climatic superiority. Among Long Islanders, tuberculosis is one of the rarest diseases, while rheumatism or asthma are unusual. Its light soil, its equal climate tempered by the ocean, its light relative humidity, its large amount of sunshine, its pure water supply and the fact that it is a great pier extending 124 miles out into the Atlantic Ocean—all contribute to make Long Island an ideal spot for health and recreation. The air is both ocean and shore, with great mobility due to the constant ocean winds. The water from the wells and springs is of the purest, freer from salts and vegetable matter than that in ordinary soil or mountain regions. There is no place on the American continent where so much comfort and enjoyment can be found as on Long Island. Every one knows of its various popular resorts, and thousands make their permanent homes while many additional thousands spend their summer

days enjoying the bright sunlight and the pale moonlight in this delightful locality. Not only the New York man with his family, but the tired ones from all America find a haven of rest and recreation in this Land of Pleasure and Pastime. The requirements of every form of sport are delightfully served—the very geography of the island contributes no unimportant part in creating conditions that to the hunter and fisher are admittedly essential. Not only does Long Island appeal to the summer pleasure-seeker, but it is an ideal place for a permanent home. The excellence of its schools and its delightful social life make it particularly desirable.

On the shores of the many bays are charming sites for cottage homes, costly villas and great estates, and here are the best facilities for yachting, rowing and fishing. Pleasure and trading vessels are continually passing, and the frequent sailboat races in sight of the shore add to the attractive view. All the principal resorts are within easy access of the City of New York, and many combine the alluring features of water, steep hills, dense forests and drives as picturesque as can be found anywhere.

In order that Long Island may be fully appreciated, the visitor must travel along the woodland roads and from the hills and high cliffs view the bays, inlets and delightful vistas of blue waters. On each of the points which run out into Long Island Sound are towns—notably those of Great Neck, Port Washington, Roslyn, Glen Cove, Nassau, Locust Valley, Oyster Bay and Huntington. Oyster Bay enjoys a location which makes it a favorite spot for pleasure crafts of all kinds. There are the club house and anchorage of the Seawanhaka Yacht Club, a noted organization of Corinthian yachtsmen who make this place a center for their sport.

To those who enjoy the sea—its surf bathing, sailing and deep water fishing—the South Shore of Long Island, on the ocean, will strongly appeal. The great South Bay, the Mecca for lovers of aquatic sports, skirts the southern shore of the island for nearly eighty miles, and is an ideal and safe inland sea for sailing and

still water bathing. The Rockaways and Manhattan Beach, the latter with its world-renowned Manhattan Beach and Oriental hotels, are well known to the traveler.

Along the great South Bay is a group of little villages which are attractive summer resorts, many having good hotels and cottages for summer guests. Babylon is the first, followed by Bayshore, Islip, Great River, Oakdale, Sayville, Bayport and Blue Point, the last the home of the famous Blue Point oyster. Through this section are to be found some of the finest estates on the Island, located amid surroundings magnificent in both area and development. Adjoining the Vanderbilt estates at Oakdale are the handsome quarters of the South Side Sportsmen's Club. This is an organization of wealthy New York men.

Jamaica, the railroad center of the Island, has become a thriving business town and the home of many of New York's business men. East of Jamaica are the great Hempstead Downs, dotted here and there with villages, in which markets, gardens and farms abound.

Garden City, a model town and widely known as the See of the Diocese of Long Island, was opened by the late A. T. Stewart. Travelers from afar go to Garden City to see its beautiful Cathedral. Mr. Stewart planned here a religious and educational movement which did not terminate with his death, and the town is in the center of a refined and cultured circle.

The queenly beauty of old Hempstead with its Revolutionary associations and relics, beautiful homes and spacious, quiet streets, good schools and churches and delightful social atmosphere, has charmed many residents both in winter and summer.

Lake Ronkonkoma is one of nature's surprises—it is the largest body of fresh water on Long Island and is fifty feet above sea level. The lake has its periods of ebb and flood, but these are in no way connected with the tides on either side of the island. Many villages in this section lie in a vast expanse of pine forests, where the air is sweet from the fragrance of the healthful pines.

At the head of the Peconic River, which flows into Peconic Bay, is Riverhead, one

of the largest towns on the island. It is the business center of that attractive country and popular with many as a place of summer residence. The waters of the beautiful and picturesque Peconic Bay are ideal for bathing and boating. On the bay all manner of pleasure crafts, bearing happy groups of carefree folk, flit by during the summer months. The historic spots in this vicinity have won the deep interest of the student of history. Floating on the landlocked waters between Gardiner's Bay and Peconic Bay is Shelter Island, one of the most widely known watering places on the Atlantic coast. The Indians knew it as the "Island Sheltered by Islands," but the Quakers gave it its name because there they found refuge from their persecutors. As a resort, Shelter Island offers all the beauties of nature, coupled with every modern convenience. There are few resorts in America more delightful than Shelter Island. A short ferry conveys passengers between Greenport and Shelter Island, and the train service between Greenport and New York is excellent.

No story of Long Island would be complete without reference to the railroad facilities of the island. Perhaps nowhere in the United States is a railroad company demonstrating greater confidence in the future of its territory than is being manifested today by the Long Island Railway Company, a corporation controlled by the Pennsylvania Railway Company, and this in face of the fact that history would discourage such immense investments. The Long Island Railroad has experienced much trouble: many changes of ownership and of management, of receivership and of reorganization, and it has encountered the opposition of a large class of restless people who believe that by making the rich poor, the poor become rich. However, in all its difficulties the road has been under the control and management of ambitious men, who looked far into the future and realized that "*success comes in cans, failure in can'ts.*" This motto hangs in a conspicuous place in the office of the general passenger agent of the railroad, and has been the beacon light that on many occasions guided enthusiasm and energy.

The Long Island Railroad Company was incorporated in 1834. The first meeting of its stockholders was in April, 1835, so that the publication of this article is at about the time when the diamond jubilee or seventy-fifth anniversary might be celebrated. The company is one of the few railroad organizations of the United States or, in fact, of the world that has continued through its entire existence to operate under its original charter and name. A new epoch in the history of the Long Island Railroad began at the period of consolidation of the cities. Difficulties that had not previously been considered confronted the company—more capital to meet the demands created by the greater city was required, operating charges increased and dividends ceased. It was necessary to remove the tracks from the surface of certain avenues, to replace steam with electricity, to eliminate grade crossings, to install additional facilities and improvements of all kinds, and all this far beyond the financial means of the company.

In 1900 when the Long Island Railroad was obliged to battle with conditions of a most portentous nature, a rift in the clouds appeared—the Pennsylvania Railroad bought a controlling interest in the stock of the Long Island company. Wisely looking toward the future, the latter organization, in connection with its plans to enter New York proper through its tunnels found that by the Long Island Railroad it could provide additional traffic to bear the burden of the cost of the tunnels and terminals, in addition to affording the opportunity and the location for the terminal passenger yard in Long Island City, which could not be provided in Manhattan. The Pennsylvania Railroad Company has aided in the financing of all these projects, and since it has controlled the road there has been expended in the various improvements, outside of the Pennsylvania tunnels and terminal, over \$30,000,000, all of which has been spent on Long Island.

The Atlantic Avenue improvement alone cost \$6,250,000, in addition to \$1,250,000 contributed by the city toward the elimination of the grade crossings in providing further facilities, both passenger

BATTLEGROUND TO PLAYGROUND

and freight, including in it the terminal connecting this new line with the interborough subway.

Over one hundred miles of the company's track have been electrified at a cost of \$4,360,000. Another \$5,000,000 has been expended on what is known as the Bay Ridge improvement; an \$8,000,000 appropriation has been exhausted for additional tracks, yards, shops, etc., and on locomotives, passenger and freight cars, steel motor cars and ferry boats there has been expended \$5,500,000. Besides this, over \$2,000,000 has been used on its subsidiary companies, con-

tricts; they must have confidence in the future of these sections and in the people who may be elected to administrative offices in the various localities.

The history of the Long Island Railroad shows that it is an institution of the people. No attempt has ever been made to ignore their rights; the men at the helm have always realized that one of the company's greatest assets is the confidence of the people.

Long Island is to the tired Eastern man what Southern California represents to the pleasure-seeking population of the West. Its future points toward illimitable

possibilities, and in all human likelihood this beautiful strip of land that first welcomes the emigrant to our shores will shortly be regarded as the most delightful spot on earth.

* * *

The financial institutions are perhaps the most important indication of general conditions in a community, and information in relation to them is usually sought by prospective residents or investors interested in any growing community or new section of development. The Queens County Trust Company of Jamaica may be used to illustrate this feature of our story,

as it is truly representative of its locality; and while in many respects it is distinctive from its less formidable contemporaries, yet its strength and stability, even under careful and able management, would not have been possible except for the fact that Jamaica and Long Island represent a region remarkable for development and growth.

A significant feature of the banking institutions of Long Island is their attractive and substantial appearance. On the Island may be seen designs that are true specimens of the finest orders in architecture.

The Queens County Trust Company building is pointed to with admiration and pride by the people of Jamaica. It is



NORTHPORT HARBOR AND VILLAGE

sisting of the various trolley lines operating to feed the main lines.

The stockholders have realized no return on their investments, but their faith in the future has encouraged them to make these immense expenditures. Its instrumentality in building up the Long Island territory, its efforts to provide better transportation facilities for Greater New York and the people of Long Island should invite the sincere commendation of every citizen who is interested in the territory in which the company operates.

Railroads must build far in advance of the towns and cities; they must create in some respect their own business by inciting development in outlying dis-

undoubtedly one of the finest bank buildings outside of Brooklyn, on the entire island.

But there is the more important basis of management that brings to financial institutions their strength and command of public support, and while massive piles of granite, stone and brick may be indications of solidity, yet destiny depends upon the men who direct and guard their affairs. In this connection there is a fortunate record, satisfying to the analytical processes that govern the critical mind,

ceed two and a half million dollars.

The company has general banking powers, and as its name would indicate performs all the various offices of trusteeship. It stands at the very head of all institutions on Long Island apart from the metropolis of Brooklyn, in the volume and extent of its business and responsibilities as a trust company. It is daily sought to act in the capacity of executor, administrator of estates, receiver, trustee, fiscal agent, registrar, transfer agent and trustee for corporations, as well as in



WINDMILL AT EASTHAMPTON

enabling them to discriminate between the good firm and the unworthy. In this instance there is in the last analysis the conclusion that Long Island's financial houses are not only a credit to architecture but to the people and interests they serve. The organization of the Queens County Trust Company was perfected in 1904, with a capital of \$500,000, which was afterward increased to \$600,000. The deposits now approximate \$1,750,000, an increase of \$400,000 during the past year. The item of surplus and undivided profits reaches the total of \$175,000, and the total resources of the company ex-

ceed various other broad channels where its resources and responsibility give to its trust an air of assured confidence and security too frequently lacking in cases where the same offices are delegated to individuals.

There is no argument as to the desirability of the employment of a responsible trust company in affairs like those above mentioned, but the value of discretion that enables one to obtain the institution where the greatest confidence can be entrusted is always carefully taken into consideration. The record for conservatism, progressiveness and wide-awake busi-

ness methods shown in the life of Colonel William M. Griffith, who has occupied many public positions and has for years been the company's president; the part performed in the administration of the affairs of the company by Robert B. Austin, for many years a member of the bar in Greater New York; the additional strength evidenced in the direct management by John E. Backus, John L. Wyckoff and William F. Wyckoff, all of whom bear names that stand for the best and most progressive things on Long Island; the financial interest in the company of James S. Sherman, Vice-President of the United States—these are important factors in the story of the Queens County

ago, as has the Sohmer Company. Like all great utility problems, the forward step has always been necessary in the development of the piano—the creation of one hundred years ago would be discarded as a worthless antique by the cultivated and discriminating music-lover of today.

Place the very highest pianistic creation of even a quarter of a century ago beside a Sohmer masterpiece of today, and note the difference!

In this little Long Island city the Sohmer Company has manufactured pianos that have been sent to every part of the civilized world; in Astoria have been made pianos that have charmed the hearts of millions, and it has always seemed



BELLE TERRE CLUBHOUSE—PORT JEFFERSON, LONG ISLAND

Trust Company. In this strong personnel and the record of six years of uninterrupted progress as well as in the substantial and very creditable official statement of its condition is evinced a strong exemplary illustration of Long Island development—a sound, conservative, progressive groundwork which people always admire as a basis of financial strength and responsibility.

At Astoria, Long Island, is located the Sohmer and other well-known piano manufacturing plants. Through the courtesy of the Sohmer management, I was shown through their model factory, which is complete in every department and equipped with the best labor-saving machinery and every facility for economical production.

Few piano manufacturers have kept pace with the great piano movement, which began in this country many years

appropriate that the highest perfection in music should be associated with the Sohmer piano, for this instrument has probably held the foremost position in the piano world.

The name itself will bring memories of early struggles and early pleasures to thousands of hearts; how many persons of mature years can recall countless occasions when, in their youthful days, they gathered about the piano bearing the well-known Sohmer insignia. It may have been a mother's piano—an instrument which today is perhaps an antique but withal cherished as a precious heirloom. It would be difficult to estimate the power of this instrument and its influence upon the lives not only of the family who owned it, but of the entire neighborhood.

As I walked through the Sohmer factory, I could not help but reflect that here was a spring that had poured sweet music to

BATTLEGROUND TO PLAYGROUND

people of every land—here on Long Island was the fountainhead of a source of pleasure that has awed the souls of millions—here the home of the great Sohmer piano.

I inquired, "What is the key to the success which the Sohmer has acquired among music-lovers?" and was told that the Sohmer represents the concrete expression of their conception of a perfect piano.

Tone is the very soul of a musical instrument, and the appellation "Soulful Sohmer," once bestowed upon the instrument by an ardent admirer, would

seem to be an admirable characterization.

Rubenstein was once asked to designate the three qualities which he deemed the most important in a piano. "The first," he replied, "is tone. The second is tone. The third is tone."

In the tone of the Sohmer lies its distinct individuality. It is rich in volume, pure in its singing quality and sympathetic throughout its entire scale. It is even and pleasing, never unbalancing and irritating.

The Sohmer is certainly the highest creation of the modern piano.



VIEWS AT EAST ROCKAWAY

MOTHER'S BOY

From the book "Heart Throbs,"

Make rowdy music, little one!
Make rowdy mirth and song!
It is for life like this, my own,
That I have watched you long.

Romp in your merry ways apart,
And shout in freedom wild;
But creep at night time to my heart,
A tired little child.

—Cora A. Watson.

AT THE AUTO SHOW

By MORTIMER SINCLAIR

VERY brilliant was the auto show held in Mechanics Building, Boston, in March, 1910. This is not an outburst of Hub enthusiasm but a fact on which all auto makers represented have declared.

Surrounding the spacious structure built by the Mechanics Charitable Association, of which Paul Revere was once President, was a line of automobiles that represented a tremendous investment in themselves. As I saw the throngs pouring into the entrances, I thought of Longfellow's lines on Paul Revere and his midnight ride. The gleaming lights of the automobiles suggested the flash of the lanterns that hung in the old North Church, "one if by land, two if by sea." The road to Lexington now knows the whizzing, purring motor car instead of the good horse on which the alarm was taken to "Concord Town" by this hero of history.

* * *

Over one-third of the money represented in the purchase of automobiles is said to come through New England. The incomparable roads and tours throughout this notable section have been great factors in superseding the horse and carriage. At summer resorts sixty per cent of the visitors arrive and depart in automobiles, and they are welcomed as substantial patrons of the great summer resorts throughout New England. Memories of the old stage-coach days are revived by the automobile when it comes up puffing and dusty from a ride of one hundred miles or so, and the passengers alight with the same travel-weary air of the old stage-coach days.

The Boston auto show was one of those exhilarating successes that mark a standard. Those who thought the auto interest was on the wane should have been there. One of the great halls was a bower of cherry trees. Real bark was nailed on the pillars of the hall from which extended real limbs of cherry trees covered with blossoms. It suggested a rest by

the road-side in some orchard for lunch—a fitting scenic setting for a country auto tour. All the automobiles, licensed and unlicensed under the Selden patent, were represented here. It was an open show, so to speak, and truly representative of all the autos entered.

The New York show was the overture in which new ideas were brought forth in the latest models. The auto manufacturers, keen and observant, make observations here, and at the Chicago show later exhibit a few of the new things suggested, but at the Boston auto show, always held in Mechanics Building in March, the last of the season, they play their "trump card" and bring out the finished product of the year, which is to woo and win the trade of the autoist.

Here was the Thomas car that made its record trip to Paris and around the world, plastered with labels as thickly as a student tourist's dress suit case, or a globe-trotter's steamer trunk. Grim, sturdy as a warrior of old, clad in his begrimed armor, it stood attracting the interest of every visitor. A mass of costly trophies seemed like an array of the silversmith's art.

Under the cherry trees were the exhibits of the Ford, and each exhibit was marked by an old-time New England guide post that suggested the devious turns of the highways on which the chauffeur keeps his eye as keenly as the engineer on the semaphore of the railroad tracks.

There was the "Overland" suggesting the sweep of the Limited express train across the continent. Then the Chalmers-Detroit—well, everybody seemed to know Hugh Chalmers and the Chalmers car. Near by was the Hudson which comes to further perpetuate the name of the man who discovered the great waterway in New York. The vehicles in the Studebaker exhibit were in sharp contrast to the pictures of the early days when this firm manufactured sturdy prairie schooners

for pioneers pushing on to the West.

Here, also, was an exhibit of the Rapid Motor Company. Two years ago the prediction was made by men prominent in the automobile industry that the commercial branch would show a greater phenomenal growth than the pleasure car. With the opening of the season of 1910, the Rapid Motor Vehicle Company of Pontiac, Michigan, not only the pioneers of commercial motor car construction, but the largest company in this especial line, find themselves booked for orders almost to their utmost capacity.

Every variety and grade of autos was displayed. Each little point of excellence was shown even if it required the electric light under a cam or wheel to show it. There was motion, life and "go" all through the building.

From the galleries came a resonant volley of "honk, honk," mingling with fearsome noises of the Claxton horn suggestive of the roar of lions in a menagerie and contrasting with the musical notes of the bugle call. Whether they had automobiles or not, the thousands pushing through the great building were a jolly throng. Some sat in the autos and looked as if they owned them, assuming the air of true autoists for the time, at least.

The "Elsie Janis" car, with tapestry and furnishings of dainty white, suggested a "motoring" bridal tour. The six-cylinder Winton No. 6 occupied a prominent place on the platform with the Packard and the Cadillac. Every sort of "auto" device known was exhibited in the gallery. Tires of all kinds from the massive rims of the heavy truck to the lighter shoeing of the racing torpedo; dash boards of glass and celluloid with shining brass trimmings; speedometers; oils; clocks; in fact, all the auto trappings and equipments were there, even to a display of fur overcoats—a composite exhibit that made the show a veritable auto encyclopedia. Not content to show automobiles for the road, there was a "swing automobile" showing how auto-lovers can have a ride on the porch, without burning gasoline. Best of all was to look into the faces of the people at the show, radiant with the pleasure of antici-

pated automobiling, and as the gazer decided to become a purchaser, the expression became serious.

Associated with automobiles are all the great personalities in the public eye. Here was the electric car sold by the E. W. Bailey Company, of Amesbury, to Thomas A. Edison, a modest, sedate "spider" electric machine.

The White Steamer indicated the evolution from the manufacture of sewing machines. This is the car in which President Taft, the first "auto" president, swung around the circle on his meteoric tours. The stately Peerless and the Pierce-Arrow with their machinery and furnishings rivalled Pullman cars in elegance, and showed the perfection attained by auto craftsmanship.

Yes, there was some display of millinery. Plumes, long and flowing, flowers and birds that rivalled even the canaries chirping and singing in the cages suspended under the cherry trees. The show was one continuous "joy ride." The lady with the poodle and the Boston terrier was there, and it took so little to amuse the crowd. Was the dog balky? Someone then recalled a similar experience when his auto had to be towed into town just as the dog had now to be dragged along. They cheered the dog!

Going home the crowds seemed not to have lost their zest for fun. Somebody distributed "kerchoo" in the car—there was a chorus of sneezes, and more sneezes. One end laughed while the other end sneezed, but the boy got off at the front end. There is a law in Boston against selling "kerchoo," and it is not to be sneezed at, but everybody laughed; the joke was not enjoyed by one old gentleman in the corner who had to bring forth frequently a very old red bandanna.

The Boston Auto Show indicated a popular and intense interest in the auto as a quasi-public institution, and furnished proof that the auto trade has become more than a mere commercial proposition. The statistics show that mortality is decreasing. The open air is a tonic the use of which the auto encourages. Every one of the thousands of visitors dreamed of a time when he or she might auto spin over the country roads of New England.

When —

appetite suggests something good—when health dictates something nourishing — when bodily strength demands something sustaining—in short, when you're hungry

Uneda Biscuit

(Never sold in bulk)

5¢ *a Package*

NATIONAL BISCUIT COMPANY

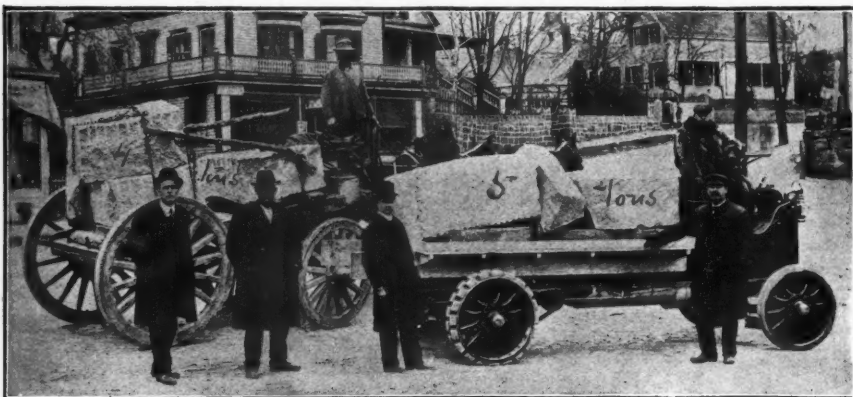
AT THE AUTO SHOW

TWO years ago the prediction was made by men prominent in the automobile industry that the commercial branch would show a greater phenomenal growth than the pleasure car. This prophecy has been fulfilled, for in every city throughout the country hundreds of motor delivery wagons are now in use, and as a result there is less congestion of traffic conditions and considerably more room in the city streets than formerly. This may be accounted for by the fact that the commercial car is capable of hauling heavier loads at a much faster pace than horses, and it occupies only the

buildings into which they have just moved.

What was promised for the motor truck five years ago is now a reality. Carefully compiled records covering the performance of many hundreds of Rapid Motor trucks under different road and climatic conditions show that a one-ton truck is capable of accomplishing more work in a shorter space of time than three-horse teams.

During a recent visit to the factory of the Rapid Motor Company, the management pointed out to me the fact that the Rapid engine has 300 less parts than the



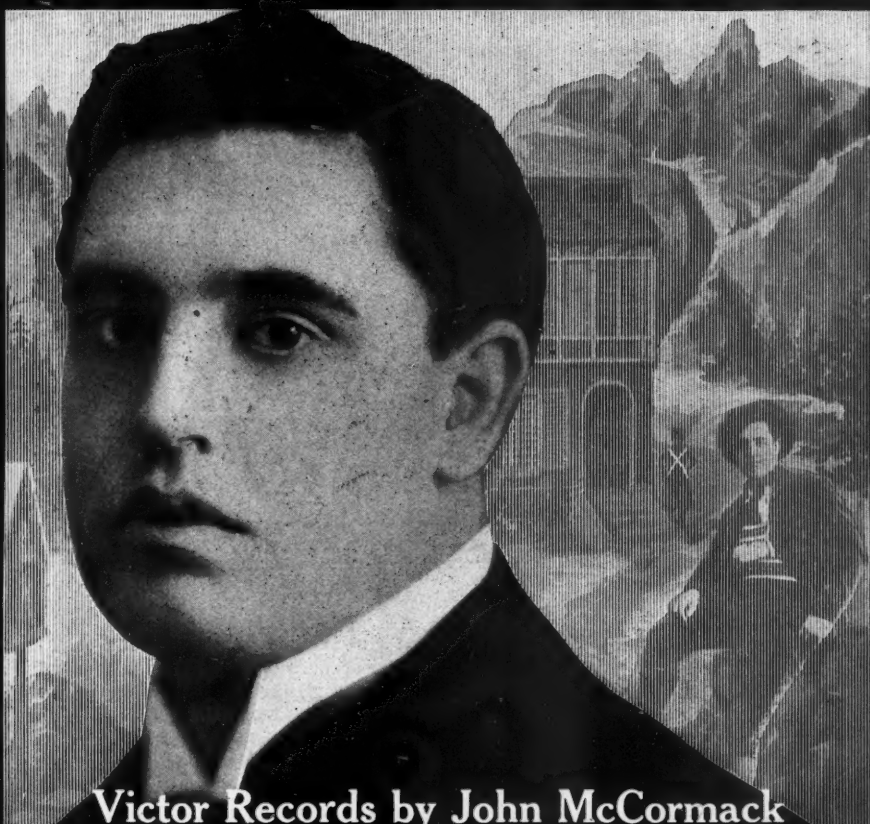
THE RAPID MOTOR TRUCK

space of a wagon, without the horses hitched to it.

While the change of feeling toward the motor propelled truck and delivery wagon has been steadily growing since their inception, it seems that the time has but now arrived for their universal adoption. The experimental stage has entirely passed, and the present product of the pioneers in the business provides assurances of a dependable and measured service. With the opening of the season of 1910, the Rapid Motor Vehicle Company of Pontiac, Michigan, not only the pioneers of commercial motor-car construction but the largest company in this especial line, find themselves booked almost to their capacity, notwithstanding the fact that over half a million dollars have been spent during the past six months for new

ordinary automobile engine. Evidently the simplicity of design has been studied to provide the maximum economy. It has been definitely determined that the relative cost of operation decreases largely in favor of the motor-drawn vehicle with the number of vehicles employed by any one concern. It is more economical in this case because of the fact that it is capable of displacing a greater number of horse-drawn vehicles.

It seems certain that the day is not far distant when but few horse-drawn vehicles will be seen upon any city street. The management of big concerns like the Rapid Motor Company believe that the horse-drawn delivery wagon will soon be a thing of the past, and they certainly can point to many advantages in favor of their motor wagon.



Victor Records by John McCormack

March 10, 1910.

"I believe that the process by which the new Victor Records are made is the most perfect of all methods of voice reproduction.

"I know that the greatest vocal artists in the world make records of their voices exclusively for the Victor Company. I have, therefore, signed an agreement to make records only for the Victor Company and am proud to add my name to such a distinguished list of singers."

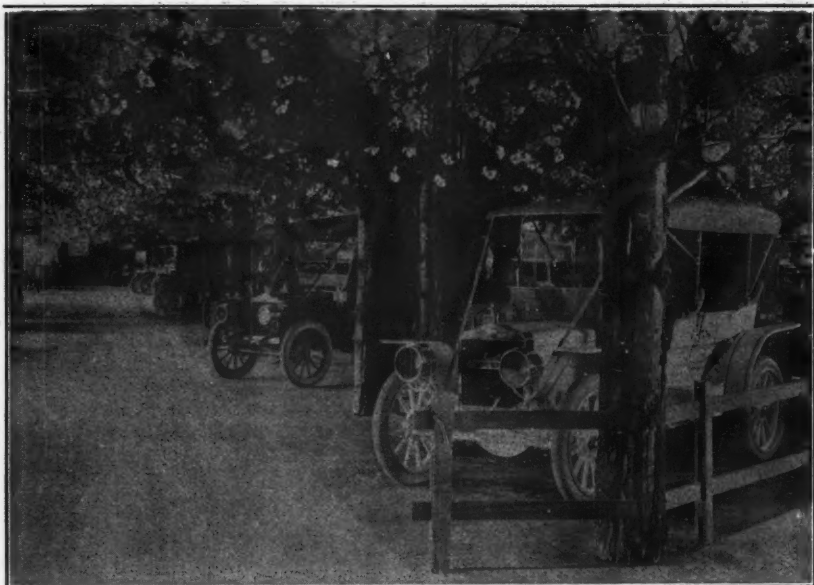
Hear these new records—made by the improved Victor process—at any Victor dealer's. Ask specially to hear "Rudolph's Narrative" from *Bohème* (88218), and "Killarney" (74157).

And be sure to hear the
Victrola



Don't fail to mention "The National Magazine" when writing to advertisers.

AT THE AUTO SHOW



VIEW OF BOSTON AUTO SHOW, 1910, SHOWING THE CHERRY TREES IN FULL BLOOM OVER THE AUTO EXHIBITS



CHESTER I. CAMPBELL
Manager Boston Auto Show, March, 1910

The graceful lines of construction of the past year were in strong contrast to the styles seen at the first show, which was given at the Boston Symphony Hall, under the direction of Mr. Chester I. Campbell, distinguished in the annals of auto-craft. While the French and foreign cars made a good start in the American auto trade, the United States automobile manufacturers are to be congratulated on the remarkable development which has been made; it is no longer a mark of distinction to own a foreign car, for on the highways American cars have met the test and proved their enduring qualities while the artistic side has not been overlooked. The concentrated enthusiasm and genius which have been displayed in the development of the automobile trade in America is one of the marvels of these swiftly moving and marvelous days.

The practical value of the American automobile has been effectively demonstrated and the auto shows reveal the product. The horse has been swept from the city streets and next will come the country roads.

PONDS EXTRACT

"The Standard for 60 Years"

For over sixty years has stood highest in the estimation of many thousands of discriminating people. Its entire harmlessness, even for children, combined with its great healing properties have made it

The Most Useful Household Remedy

For cuts, sprains, bruises, burns, boils, sore throat, catarrh, etc.

Send for descriptive booklet free.

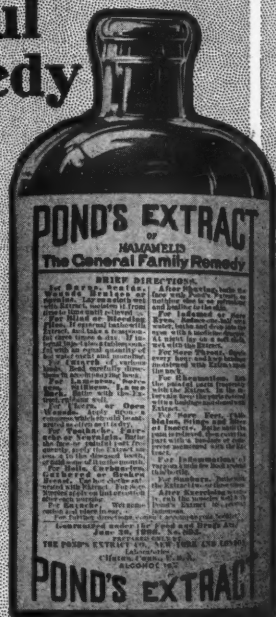
POND'S EXTRACT COMPANY'S VANISHING CREAM

is an ideal, non-oily toilet cream of great purity and exquisite Jacque Rose fragrance. "Vanishing Cream" effectively promotes that fineness of skin texture so requisite to a clear and beautiful complexion.

Free Sample on request, or send 4c in stamps for large trial tube.

POND'S EXTRACT CO.

Dept. 18 78 Hudson St. New York





THREE years ago the NATIONAL MAGAZINE printed an exhaustive illustrated article on the Panama Canal, by the editor. These copies are still on sale and have been in great demand month by month ever since. In February, Mr. Joe Chapple, editor of the NATIONAL, visited Panama the second time, and in this month's number appears a most comprehensive illustrated article on "The Panama Canal Today." The canal enterprise is one in which every American citizen is directly interested, and an account written by the editor, who rode through the great cut on a dirt train and visited among the steam shovels and went to the bottom of the locks, will be of intense interest. Order your extra copies because the demand for the May issue will be greatly increased if we may judge by the previous issues containing articles on the canal. They will be magazines to keep for future reference, as a premium is already paid for magazines in which the previous article was published. A tour of the entire canal across the Isthmus was made in company with Colonel George W. Goethals, and the large number of special photographs obtained will be a pictorial presentation of "The Panama Canal Today," that will attract widespread attention. Every visitor to the Isthmus finds enthusiasm growing upon him as he passes over the forty-seven miles of canal-making. It is the great industrial epic of the times—a rhythm of 40,000 people working in unison. If you would like extra copies, order early of your newsdealer or send direct to us and copies will be promptly mailed. Another installment of this great feature will appear in the June number.

VERY valuable little book, recently published, is "First Aid to the Injured," by H. H. Hartung, M. D., of Boston; a text book that ought to be in the hands of every policeman and fireman. In fact, if the contents of this little volume were familiar to every citizen, the information in these 123 pages would every day be the means of saving many lives amid the unexpected calamities which occur in our busy modern times. Every possible contingency in the way of giving first aid is contemplated in Dr. Hartung's instructions, which are couched in simple, direct language that can be as readily understood by a boy or girl as by a man or woman. Those who have read these details of "first aid" earnestly advocate placing the book in the hands of every person in the United States.

In order to make the subject perfectly clear the author has given a brief comprehensive sketch of the human body, with illustrations, and makes the technical medical terms plain to those not versed in them. In the chapter on the circulation of the blood there are many valuable suggestions for stopping external and internal bleeding. The chapter on respiration describes the symptoms of suffocation from various causes, and gives instructions for inducing artificial breathing. "Fractures and Broken Bones," "Various Kinds of Wounds," "Poisons," "Shock and Unconscious Condition," "Bandaging," "Transportation of the Wounded," are the titles of chapters which include every scrap of information that could be used by amateurs trying to give aid to injured persons, in the absence of a doctor. The reader is told not only what to do, but wha.

THE EQUITABLE LIFE ASSURANCE SOCIETY OF THE UNITED STATES

NEW YORK, FEBRUARY 19, 1910.

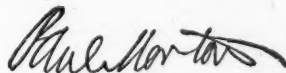
TO POLICYHOLDERS:

The following synopsis of the Annual Statement, as of December 31, 1909, is submitted for your information:

	1909	1908
TOTAL ASSETS - - - - -	\$486,109,637.96	\$472,339,508.83
TOTAL LIABILITIES - - - - -	400,837,318.68	391,072,041.93
Consisting of Insurance Fund \$393,223,558.00 and \$7,613,760.68 of miscellaneous liabilities for 1909.		
The Insurance Fund (with future premiums and interest) will pay all outstanding policies as they mature.		
TOTAL SURPLUS - - - - -	85,272,319.30	81,267,466.90
With an increasing number of maturities of Deferred Dividend Policies this sum will in time decrease.		
NEW INSURANCE PAID FOR (including additions \$3,852,143.00 in 1909 and \$3,540,621.00 in 1908) - - - - -	110,943,016.00	91,262,101.00
This is an increase for the year of 21½ per cent., and was secured at a lower expense ratio than in 1908.		
INCREASE IN OUTSTANDING INSURANCE IN 1909 - - - - -	8,869,439.00	
COMPARED WITH A DECREASE IN 1908 - - - - -		13,647,814.00
An improvement of \$22,517,253.00 as compared with 1908.		
FIRST YEAR CASH PREMIUMS (excluding on additions) - - - - -	3,774,321.27	2,724,976.59
This is an increase of 38½ per cent. as compared with 1908.		
TOTAL AMOUNT PAID TO POLICYHOLDERS - - - - -	51,716,579.04	47,861,542.69
DEATH BENEFITS - - - - -	20,102,318.67	20,324,002.65
97 per cent. of all Death Claims in America were paid within one day after proofs of death were received.		
ENDOWMENTS - - - - -	6,321,554.41	4,830,170.10
ANNUITIES, SURRENDER VALUES AND OTHER BENEFITS - - - - -	15,683,665.88	14,696,354.16
DIVIDENDS TO POLICYHOLDERS - - - - -	9,609,040.08	8,011,015.78
1910 dividends to Policyholders will approximate \$11,000,000.00.		
DIVIDENDS TO STOCKHOLDERS - - - - -	7,000.00	7,000.00
This is the maximum annual dividend that stockholders can receive under the Society's Charter.		
OUTSTANDING LOANS TO POLICYHOLDERS - - - - -	59,954,933.10	57,053,555.28
EARNINGS FROM INTEREST AND RENTS - - - - -	21,074,013.95	20,636,405.61
OUTSTANDING LOANS ON REAL ESTATE MORTGAGES - - - - -	97,532,648.03	97,570,767.22
TOTAL EXPENSES, including Commissions and Taxes - - - - -	10,438,729.64	9,758,447.46

The average gross rate of interest realized during 1909 amounted to 4.50 per cent., as against 4.45 per cent. in 1908, 4.39 per cent. in 1907, 4.26 per cent. in 1906, 4.03 per cent. in 1905, and 3.90 per cent. in 1904.

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PRESIDENT

not to do, as in cases where the effort to force stimulants down the throat of the patient would do more harm than good. The little book has already done good service, and certainly has an important mission to perform in the world. Dr. Hartung is the Medical Major Surgeon in the Massachusetts Volunteer Militia; member of the Massachusetts Medical Society, American Medical Association, Association of Military Surgeons of the United States and Instructor in First Aid to the Metropolitan Park Police and Boston Police Department, and is admitted to be peculiarly well fitted to give information on



H. H. HARTUNG, M.D.

all subjects connected with "first aid." His little manual is of convenient size for pocket use, and has the hearty endorsement of the members of the Red Cross Society. It is published by the Boston Society of Instruction in First Aid, and the price is fifty cents.

* * *

AN intrepid "globe trotter," who has served with distinction as war correspondent on three continents, gives American readers a new book—none other than "In Wildest Africa," by Peter MacQueen, Fellow of the Royal Geographical Society.

Those who know the author personally, or as lecturer and writer, always expect from

his pen rare and golden information, flowing easily in the pleasant, conversational style which is one of the greatest charms of his society. His fellow-countrymen are to be congratulated in having such a new and readable book as "In Wildest Africa," every page alive with all the fire and enterprise of personal experience and narrative. All his life this wiry, quiet-voiced, daring little Scotchman has had the "wanderlust." There is hardly a section of the globe on which Peter's foot has not trodden at some time, and in his trip through Africa he preceded President Roosevelt, and has undoubtedly furnished a standard work on that interesting continent. The trouble with most works of this kind is that they are too heavy, too full of needless statistics and wearisome detail, but Peter meets the people face to face—he likewise meets the animals and looks them in the eye without murderous designs on their lives—and tells a true tale of both.

The author presents a new Africa, peopled by races, many of whom we certainly have not before met with in African literature. He tells of their habits, their religion, their ideas on national polity and economics, clearly bringing out the fact that Africa is not wholly peopled by bands of lawless marauders or cannibals. Many tribes have formed governments and communities which have all the indications of coming civilization.

The book is well printed and is rich in interesting pictures, anecdotes and incidents of personal experience and adventure. Peter tells how he climbed mountains, made friends, threaded pathless forests, slept outdoors within sound of the howl of wild beasts—or peacefully lay awake to receive such fascinating midnight callers as lions or elephants—every line of "In Wildest Africa" has the inimitable MacQueen touch.

The series of African articles in the NATIONAL MAGAZINE were the fitting prelude to the experiences and remarks of the ex-President. Those who read the one and are following with interest the other cannot but wonder if Mr. Roosevelt also will utter the prediction:

"I make no doubt that this Central Africa, so wild and dark through all the past millenniums of man's life, will in the near future be the site of one of the most eager and commanding civilizations on the globe. . . . the happy home of rejoicing millions of

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Illustrated catalogue will be sent upon request and mention of this magazine.

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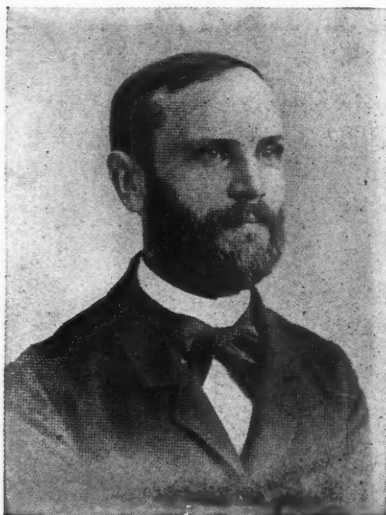
Subway Express Station at the Door

LET'S TALK IT OVER

free men, white and black. It is a thesaurus of rich minerals; it is a garden of superb fecundity; it is a fairyland for the lotus eater; it is a mart for the merchant. But for the man who hates the dust of cities and the mad clash and recoil of selfish and contending interests, Africa is a haven of rest."

* * *

THE editor of the NATIONAL hopes that every reader's attention was attracted to the article upon "Chicago," by John McGovern, appearing in last month's issue. Personally, the editor believes it to be one of the most



JOHN MCGOVERN OF CHICAGO

interesting and readable articles of a similar nature that he has ever had the pleasure of reading. Probably there is no man living who is better fitted, by reason of scholarly attainment, broad judgment and thorough acquaintance with his subject, to write such an appreciation of the great American city than Mr. McGovern, who is one of the oldest of Chicago's writers, and one of the most versatile.

For sixteen years Mr. McGovern was employed on the *Chicago Tribune*. He was at one time leading editorial writer of the *Chicago Herald*, and was editor of the *Current*, the *Graphic* and the *Illustrated World's Fair*. He is the author of twenty-

five books, and is known throughout the United States as a forceful and graphic newspaper and magazine writer. It is said of Mr. McGovern that he is the finest writer of our language, as well as the most scholarly and the best-read man in Chicago. Also he is a graceful and eloquent speaker, and has gained sincere appreciation upon the lecture platform. For all that Mr. McGovern has written upon such a wide range of subjects, in a personal letter to the editor he naively confesses that he takes more real pleasure in Shakespeariana than in any other field, and hopes to finish a contemplated series of Shakespearian subjects, though with characteristic modesty he doubts if ever he "shall become great enough to do *Lear*—the *debacle*, the *smash-up*—insanity piled high on the pyre of cynicism, as reached in *Timon*, *Cleopatra* and *Crassida*."

* * *

A MEMBER of the Cozy Corner circle brought in a book considered especially suited for a firelight gathering. The title page told its own story, "When She Came Home from College," and showed the dual authorship of Marian Kent Hurd and Jean B. Wilson. Houghton & Mifflin are publishers.

The book is a charming recital of what befell one young woman during that critical period when, leaving college life behind, she regards her education as "finished" and looks forward to her "life work" clearly outlined on her mental horizon. The story opens delightfully with a good-bye scene in a dismantled college room, where candy is made and eaten hot amid a shower of typical collegiate comments, while the heroine of the tale explains to her admiring companions her literary ideals and plans for life. How both were laid aside in the stress of family life—how the apparently sordid details of household management fell upon the young shoulders of the college girl during her mother's illness and absence in a sanitarium; how the fearful conflict with "help" was waged until the Duchess arrived and quietly took the reins of government out of the hands of the young mistress; how the college-bred girl rebelled against such rule, and how she added thereby to the sorrows of the household—all incidents are humorous, pathetic or entertaining and yet have lessons of their own—"when she comes home from college."



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- - -

St. Louis, Mo.

THE census of the year 1900 gave printing as the seventh most important industry; if the census man does his duty this year he will place printing first. The editor, who at a very tender age simultaneously grasped the printing business and the handle of a Washington hand press, will not admit for an instant that his opinion that printing is our most important industry is biased by his loyalty to his first love.

Disregard entirely the part the printer has played in education, in the advancement of the world, forget the power of the press and consider printing as an industry only:

The only business that has for its customers every business is the printing business. Remove the printer—every business would cease to grow and many would die instantly.

That so few people really appreciate the importance of the printer is of course the fault of the printer who has devoted himself to the technicalities of his calling—quite as much an art as a business—producing the publicity upon which his customers thrive and yet content with profits that these customers would consider trivial.

"What is the matter with the printing business?" No question is heard more often among printers; it is discussed and rediscussed in their meetings, and the printer who has not been asked that question by his banker has not yet stepped forward to claim the destination that awaits him.

The clearest, most convincing answer to this absorbing question we have ever seen is a pamphlet called "Printing for Profit," just issued by the Monotype Company, the manufacturers of the type casting and composing machines that make and set individual types; this has been written with such an obviously sincere desire to help all of us printers and so exactly expresses our own opinion of "what is the matter with the printing business" that we gladly call attention to it.

"Printing for Profit" is much more than an advertisement. It is a short course in salesmanship that every business man, be he producer or purchaser of printing, can read with profit.

That very clever phrase, "the recollection of quality remains long after the price is forgotten," might well have been taken as the text of "Printing for Profit." It is truly refreshing to see a manufacturer brush aside all machine technicalities, all questions of output, all claims for cheap production and get down to the bed rock principles of selling and frankly say that the first question in selecting machinery is not "How cheaply will this machine produce work?" Of far more importance are "What does it produce?" "What market can I find for this product?" and "What profit will it return on the investment?"

The wise business man never lets go of this fundamental fact—"Selling price minus production cost and selling expense equals profit"; of all the factors in that equation none affect the result (profit) as rapidly as selling price. The root of the evil of small profits in the printing business is not high production costs, but it is poor salesmanship, the result of a disregard for proper standards of quality. What could be more foolish, for example, than for the National Magazine to scour the country for articles of interest to our readers and then print them in any but the best possible manner, worthy of the matter presented and the people who read it?

In no business are quality and service more important than in the printing business. To our realization of this fact no small part of the National's success is due; not until we could see our way clear to have our own printing plant, wherein, unhampered by any limitations, we could carry out our ideals of quality, were we willing to begin the publication of the National Magazine, for which we had worked and planned for years. Ours is a quality country, our people demand the best and are willing to pay for it—the printer who does not keep that truth constantly before him has every reason to ask: "What is the matter with the printing business?"

These words from "Printing for Profit" ought to be printed in red and gold and hung in every printing office:

"Quality pays handsomely—it is the best and only lever to raise prices and



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Messages of fifty words or more will be sent at night and delivered the following morning throughout the United States by the Western Union Telegraph Company.

A fifty-word “Night Letter” will be sent for the price of a ten-word day message.

Each additional ten words or less—one-fifth of the charge for the first fifty words.

The “Night Letter” eliminates the necessity of abbreviation, and makes the telegraph service available for social correspondence as well as for business communications.

This company’s facilities for this service include forty thousand employees, over one million and a quarter miles of wire, and twenty-five thousand offices.

THE WESTERN UNION TELEGRAPH COMPANY
Prompt, Efficient, Popular Service.

LET'S TALK IT OVER

increase profits." The customer you hold by the slender thread of low price is here today and gone tomorrow; the customer you hold by service and quality is bound to you, a permanent asset of your business."

We will hang that up in our office beneath our own motto: "Not how cheap, but how good." At least two reasons prompt us to do this: First, to keep constantly before ourselves and our employees the fact that the Chapple Publishing Company is in business to help itself, for we intend to stay in business, and the purchasers of printing, who, like ourselves, are striving for quality; second, as a warning that our business is "poor pickin's" for the representatives of machine manufacturers, who are not helping in this quality crusade, but instead beat down the prices of printing and deprive the printer of the legitimate reward of his capital, skill and industry by "talking cheap."

WE would like an expression of opinion, from the readers of the National, regarding the articles on the Panama Canal in the May issue. Another instalment of this account of the great undertaking will be published in June, and we believe that the publication of these articles will inspire our readers to reveal to us something of their intense and universal interest in this great project. The May issue contains many interesting chapters, liberally illustrated, but the June number will complete the story with facts that thrill with patriotic pride in achievement. The copies of the National containing a Panama article printed three years ago are still preserved in many homes, and are even being sold by newsdealers today as comprehensive information on Panama. Readers of the National will feel desirous of saving their May and June copies of the National, because they will make valuable reference books for the year 1915, when the Canal is completed.

The enthusiasm and interest shown by the office force in the preparation of the article may be regarded as the precursors of the general interest that is felt in details of the Canal project. We have tried to make this sketch of the work

as comprehensive and complete as possible, and if you desire extra copies to preserve, or to send to friends, send in your orders for May and June numbers as early as possible. Single copies will be mailed postage paid for fifteen cents, including the handsome special engraved map in colors, pronounced the finest ever issued.

The June issue may be regarded by some as being of even more interest than the May number, for in it will be found "Social Life on the Isthmus," "Changing the World Map," "The Canal a Proving Ground," and other portions of the series dealing more particularly with the human and social side of the work, and with everyday conditions on the Zone as they affect family and individual life. The human interest in the Canal is perhaps its most remarkable phase, and this is exhaustively treated in the June issue.

* * *

STILL they continue to come in: words of hearty, ringing appreciation of the new book "Heart Songs." Order a copy at the combination rate in renewing your subscription to the National:

"Heart Songs" reached me today, and well pleased with the book; it calls many happy memories, and carries me back to the days of my youth.—*M. Packett, Marion, Idaho.*

I am one of the fortunate possessors of a copy of "Heart Songs," and am very glad to bear witness to its great value and early associations than anything I ever saw before. I congratulate and thank you for compiling and publishing it. If you publish a second volume, count me in.—*H. H. Spooner, Kensington, Connecticut.*

The work includes a wide range of nearly every kind and class, and the best selections of each to answer every want.—*H. D. Todd, Jr., War Department, Washington, D. C.*

My copy of "Heart Songs" received yesterday, and I wish to thank you for the promptness with which you handled my order. I am greatly pleased with the collection of songs and think it the best I have ever seen. I shall enjoy "Heart Songs" very much, I am sure.—*Miss Willa McClure, 904 West Austin Street, Nevada, Missouri.*

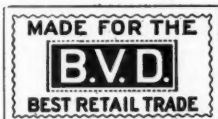
The book came all right and I am well pleased with it, and do not want to give it back. The reason I sent for it was it contained many of the old songs I used to sing when a boy, and in my youthful days. Though well along in years, it cheers my heart and soothes my mind to sing, and hear others sing them now, having forgotten many of them, with the exception of a few lines or a verse. The desire to get hold of them quite frequently manifested itself in heart and mind, too.—*George Ely, Holly, New York.*

Your book "Heart Songs" received and I am very much pleased with it. Cannot see how any lover of old time music can afford to be without it. It certainly should occupy a place of honor in every library. I have sung at least half of the pieces many times, and it brings back many pleasant memories of the past. To me the book is invaluable.—*J. M. Harvey, 2 Edgewood Street, Worcester, Massachusetts.*



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A FALSE ALARM

By CHARLES DENNETT

WE had been married only a few days when we moved into a cosy little home which had been built with savings accumulated before the event. Our funds were limited, and we found it necessary to settle some distance away from the more thickly populated part of the city, among the new sections just opened.

I had never thought of my wife as a timid woman, but I could not help wondering if there was not to be a protest when, in the usual order of events, it would be found that sometimes I would be called away from the city for a few days.

* * *

The night was hot and muggy, and in order to get a breath of air, it was necessary to leave all the windows wide open. In the deepest darkness of the night, I was suddenly awakened by a sharp pinch from my wife, and the startled whisper, "John! John!" Just then there was a flash of light at the open window. I listened for a moment, my own heart beating like a trip-hammer, then steadying my nerves, said, with forced calm, "Nonsense; it's only heat-lightning." But, again the deadly flash, suggestive of a burglar's lantern, came in at the win-

dow and disappeared so quickly that I was unable to locate it. "There it is! Don't you see it?" exclaimed my wife almost hysterically.

I did not answer, for my mind was wrestling with a dozen thoughts. Here was a predicament. There was no suitable weapon in the house with which to cope with such a midnight intruder. I also labored under the disadvantage of facing a hidden foe, and my courage was at a passive stage, when the flash was repeated. My wife, in a terrified whisper, pleaded that I save the house, the wedding presents, and most of all—herself, from the mysterious invader. What man, armed with the responsibility of being protector of the home, could refuse such a demand?

Another flash—accompanied with a repressed scream from my wife, and the hoarse command, "Scare them away, John!"—suggested a rather brilliant idea, and breathlessly I caught the shoestring of my brogans and with all my force slammed them heavily on the bare floor. This seemed effective, and I prepared once more to resign myself to sleep.

Again a flash. This time my wife's terrified plea, "Do something! Do some-



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THE HOME

thing!" summoned both my departing courage and wits. But what? The most feasible weapon in our dwelling was the long poker in the kitchen, and to reach that necessitated passing the window, where the danger lay. Could I crawl across the room stealthily on "all fours"? By that means only could I safely reach the kitchen and be armed for the expected combat.

An intervening flash clinched my decision, and carefully lowering myself cautiously to the floor, I prepared to crawl to the door. It was slow work, and the flashes behind my back became more numerous and terrifying. At last I reached the kitchen, and grasping the poker I returned, my courage somewhat renewed by the heavy iron bar in my hand. I crept slowly to the window, when a blaze of light was turned full upon me.

First, I was startled, and then, taking in the situation at a glance, my anger called forth, I fear, a few explosive remarks. The light was coming from something held in the hands of my spouse—darkness followed—and peals of feminine laughter reached my indignant ear.

My "timid" wife had been testing a small electric flash light at my expense.

LITTLE HELPS FOR HOME-MAKERS

For the Little Helps found suited for use in this department we award six months' subscription to the National Magazine. If you are already a subscriber, your subscription must be paid in full to date in order to take advantage of this offer. You can then either extend your own term or send the National to a friend. If your Little Help does not appear it is probably because the same idea has been offered by someone before you. Try again. We do not want cooking recipes unless you have one for a new or uncommon dish. Enclose a stamped and addressed envelope if you wish us to return or acknowledge unavailable offerings.

THE SPARROW

By Mrs. J. C. Deere

If bothered with sparrows on the porch or shutters of your house, put a little molasses on their roosting place and they will leave.

Chocolate Frosting

A new way to make chocolate frosting is as follows: instead of boiling the chocolate with the syrup, add it just before placing it on the cake, but while still hot. You will be pleased with the result.

TO WHITEN YELLOWED LINEN

By Mrs. Eva M. Bunnell

Fine linen, such as pocket handkerchiefs, collars and infants' clothing, that have become yellow, may be whitened by boiling for half an hour in strong suds, made with yellow soap and milk and water (half water and half milk), then wash in ordinary suds—hot; rinse first in clear hot water, then in cold blued water.

To Wash Corduroy

Wash with a good white soap, making a suds; then rinse in plenty of clear water and hang without squeezing or wringing, as either will ruin the goods; when dry, do not iron, but rub smooth with the fingers to restore the silky look.

Chrysanthemums for the Winter

Break off budded branches of chrysanthemums, which you are afraid Jack Frost will take, keep in jars of water in a cool (not freezing) place; bring them into a warmer room as you want them and you will have blossoms as long as the branches last.

For the Aster

To rid asters of maggots, which destroy so many fine plants, work wood ashes into the soil, and remove a little soil immediately about the base of each plant, then scatter tobacco-dust there liberally; it is best to change the location of the bed yearly, but the liberal use of wood ashes and tobacco-dust will help much to keep the maggots away.

New Use For Lemon Juice

A little lemon juice added to cream when whipping it, will make it thicken faster, as well as add to the flavor. When someone has carelessly scratched the painted wood with matches, rub with a cut lemon; the juice will remove the marks.

Moth-Ball Preventive

Try tying moth-balls in thin cloth and tying them among the roses and grape-vines to rid the shrub of rose-bugs. Put two or three balls in each hill of cucumbers, squash, etc., to rid the plants of pests. Moth-balls placed in mole-runs are said to drive the moles away.

FLOWERING BULBS

By Lettie M. Kennedy

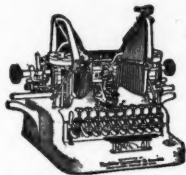
In raising gladioli, plant them in the garden about four inches deep, and in hills, from four to six in a hill, and hoe them just as you would hoe your potatoes; when they begin to blossom, cut the stalks and put them in water; all the buds will gradually open.

You will then have strong fat bulbs at digging time. When the flowers are allowed to open and fade on the stalk, they cause the bulb to weaken, and they will gradually become worthless.

Dahlias

Dahlias are beautiful, but quite expensive where you buy the bulbs. One can buy mixed seed and have several colors at small expense. I have planted the seed in the open ground the middle of May and had the flowers the following September. The last time, I planted them the first of April in the house; then transferred them to the open ground when there was no danger of frost; my reward was very gratifying in numerous blossoms.

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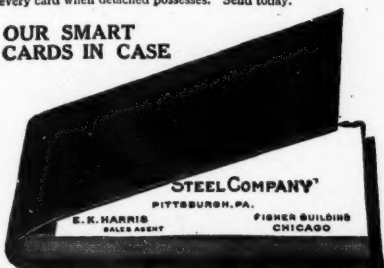
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THE HOME

TO SET COLORS

By Mrs. J. E. George

To set colors in prints, put a handful of common salt and two large tablespoonsful of turpentine in a pail of rain water; then place the soiled garments in the pail and let soak all night; this sets the color in any kind of goods which is liable to fade; I have used this for many years and found it the best of anything I ever tried.

Home-made Fireless Cooker

Having an old-fashioned commode, I first lined the upper part, cover too, with several thicknesses of newspapers, tacking on with tacks. In the space made for the pitcher, put in hay and thin board to prevent burning; heat two soapstones (Tilo, or bricks will do) piping hot; then, after I get whatever food I am preparing, which must be in tightly covered dishes, like lard pails, bean pots, and the like, boiling hot, place dishes on one soapstone and the other on top of the dishes; then pack in papers around it all and weight down the covers to prevent air getting in; I have cooked my baked beans this way all summer; they are fine; the secret is to give everything plenty of time and just water to cover.

A Boiled Dinner

To prepare a boiled dinner, take a deep pan with a flat rim; in this put the vegetables, then pour on the meat liquor, which must be boiled the day before (keeping the meat in a warm place).

Cover this over with another flatrimmed pan; this is to prevent steam from escaping; set on top of stove just long enough to get it to boiling; then place it in a hot oven and cook all the morning; it will come out beautifully done and saves all odor, usually unpleasant; be sure the vegetables are all covered with the liquor when placed in the oven; this prevents drying out and disturbing them till done.

WINTER WASHING

By C. B.

To protect handkerchiefs and fingers in cold weather, I have found it a great saving to handkerchiefs and small fine pieces, to fasten them to a long strip of cotton, while in the house; then pin the strip to the clothes-line.

A Dustless Dust-Cloth

To make a dustless dust-cloth, saturate a piece of cheesecloth with turpentine; dry thoroughly and it is ready for use. You will be surprised to see how well it does its work; the dust will not fall from it until thoroughly shaken.

TWO-STORY BISCUIT

By E. L. F.

For baking-powder or soda biscuit, try rolling the dough only half as thick as usual, spread with melted butter, cut out biscuits and lay in buttered pans, two deep; prick the top with a fork, to press the layers together; sprinkle on a little sugar; have oven very hot for five minutes. The tops will be crisp and brown, and the layers will break apart in a very appetizing manner. "Two-story biscuit" is the name given to them by one of our friends.

AID IN BUTTONHOLE MAKING

By Mame E. Buxton

When making buttonholes in material that ravel easily, first mark the position of the buttonholes, then with the machine stitch on each side of mark; now cut out the buttonhole and you will find you have a firm and substantial edge to work over, with no frayed edges to give an untidy look when finished.

A Warning

Do not have an electric light within reach of the bath-tub. There is great danger of a shock should one attempt to turn on the light while standing in the tub, owing to the metal pipes that connect the tub with the ground.

Value of Hot Water

Pain, no matter where located, will be quickly relieved if one drinks several cups of hot water. While suffering greatly from severe muscular rheumatism, nothing seemed to avail until I began drinking freely of very hot water; the effect was magical and I was able to lie down in comfort, when it had been agony to move before trying the simple remedy; had I but learned this long ago, I would have been saved much unnecessary suffering. It is well worth passing along—a remedy so simple and so effective.

PREVENT BURNING CAKE

By Mrs. Mary Hunter Bizler

It is not generally known that to prevent cakes from burning, all you need to do is to place a little bran on the bottom of the tins; try it for yourselves and see.

To Keep Away Rats

Sprinkle cayenne pepper in the corn bins, and your barn will be free from the rats.

Lemon Help

If when using lemons you need only half of it, put the other half on a plate and cover with a glass; this excludes the air and prevents it from getting dried or mouldy.

For Cinders

A celebrated oculist recommends in any case where dirt, lime or a cinder gets into the eye, that the sufferer should use pure olive oil; the remedy is quite painless and never fails to remove all foreign substance.

GROUND COFFEE

By Mrs. Erland Engh

If the housewife who buys her coffee ground will put it in a dripping pan, then beat an egg and stir it into the coffee, put it in a warm oven and dry, then return it to the can, she will have her coffee always ready for use and it will be clear and mild; besides the economy on eggs will be distinctly appreciated by many.

Carded Wool for Pincushions

Carded wool is the very best filling for pincushions, being easily filled and light, also the best receptacle.

For Dainty Waists

To prevent the buttons from tearing out of our sheer lingerie waists, I stitch a piece of narrow tape (No. 0) on the under side of the hem on the line of the buttons and sew them on this.